

# Data Tables

<http://www.epa.gov/oar/aqtrnd98/appenda.pdf>

**Table A-1. National Air Quality Trends Statistics for Criteria Pollutants, 1989–1998**

Statistic	# of Sites	Units	Percentile	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>Carbon Monoxide</b>													
2nd Max. 8-hr.	363	ppm	95th	10.9	10.5	9.8	8.5	8.0	8.1	7.6	7.4	6.7	6.3
2nd Max. 8-hr.	363	ppm	90th	9.7	8.8	8.7	7.8	7.2	7.6	6.6	6.5	5.9	5.7
2nd Max. 8-hr.	363	ppm	75th	7.7	7.0	7.0	6.4	5.9	6.2	5.5	5.1	4.9	4.6
2nd Max. 8-hr.	363	ppm	50th	5.9	5.4	5.2	4.8	4.7	4.9	4.3	3.9	3.8	3.5
2nd Max. 8-hr.	363	ppm	25th	4.4	4.2	3.9	3.7	3.6	3.8	3.3	3.0	2.9	2.7
2nd Max. 8-hr.	363	ppm	10th	3.4	3.1	3.0	2.8	2.9	2.8	2.5	2.3	2.1	2.1
2nd Max. 8-hr.	363	ppm	5th	2.6	2.5	2.3	2.4	2.2	2.2	2.3	2.0	1.7	1.9
2nd Max. 8-hr.	363	ppm	Arith. Mean	6.2	5.8	5.6	5.2	4.9	5.1	4.5	4.2	3.9	3.8
<b>Lead</b>													
Max. Qtr. AM	189	ppm	95th	0.27	0.35	0.21	0.18	0.18	0.14	0.14	0.13	0.12	0.13
Max. Qtr. AM	189	ppm	90th	0.17	0.16	0.15	0.13	0.11	0.10	0.09	0.09	0.09	0.08
Max. Qtr. AM	189	ppm	75th	0.11	0.09	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04
Max. Qtr. AM	189	ppm	50th	0.06	0.05	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02
Max. Qtr. AM	189	ppm	25th	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01
Max. Qtr. AM	189	ppm	10th	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max. Qtr. AM	189	ppm	5th	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max. Qtr. AM	189	ppm	Arith. Mean	0.09	0.09	0.07	0.06	0.05	0.05	0.04	0.04	0.04	0.04
<b>Nitrogen Dioxide</b>													
Arith. Mean	225	ppm	95th	0.043	0.040	0.043	0.038	0.037	0.040	0.039	0.037	0.034	0.035
Arith. Mean	225	ppm	90th	0.035	0.034	0.033	0.033	0.033	0.034	0.032	0.032	0.031	0.031
Arith. Mean	225	ppm	75th	0.027	0.025	0.025	0.024	0.024	0.024	0.023	0.024	0.022	0.023
Arith. Mean	225	ppm	50th	0.020	0.019	0.019	0.018	0.018	0.019	0.019	0.018	0.018	0.018
Arith. Mean	225	ppm	25th	0.013	0.013	0.012	0.013	0.013	0.013	0.012	0.012	0.012	0.012
Arith. Mean	225	ppm	10th	0.007	0.007	0.007	0.007	0.007	0.008	0.007	0.007	0.007	0.006
Arith. Mean	225	ppm	5th	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.004	0.004	0.004
Arith. Mean	225	ppm	Arith. Mean	0.021	0.020	0.020	0.019	0.019	0.020	0.019	0.019	0.018	0.018
<b>Ozone</b>													
2nd Max. 1-hr.	661	ppm	95th	0.171	0.170	0.170	0.160	0.150	0.150	0.150	0.144	0.142	0.154
2nd Max. 1-hr.	661	ppm	90th	0.150	0.146	0.149	0.131	0.138	0.130	0.139	0.127	0.130	0.134
2nd Max. 1-hr.	661	ppm	75th	0.124	0.120	0.124	0.111	0.120	0.117	0.123	0.114	0.116	0.119
2nd Max. 1-hr.	661	ppm	50th	0.107	0.107	0.108	0.100	0.104	0.104	0.110	0.103	0.103	0.109
2nd Max. 1-hr.	661	ppm	25th	0.095	0.095	0.095	0.090	0.091	0.092	0.098	0.093	0.091	0.096
2nd Max. 1-hr.	661	ppm	10th	0.085	0.083	0.081	0.081	0.080	0.083	0.085	0.085	0.081	0.086
2nd Max. 1-hr.	661	ppm	5th	0.080	0.075	0.075	0.074	0.075	0.077	0.078	0.079	0.075	0.076
2nd Max. 1-hr.	661	ppm	Arith. Mean	0.114	0.112	0.113	0.105	0.108	0.107	0.112	0.106	0.105	0.110
4th Max. 8-hr.	661	ppm	95th	0.117	0.116	0.116	0.107	0.110	0.106	0.112	0.103	0.105	0.110
4th Max. 8-hr.	661	ppm	90th	0.105	0.106	0.109	0.097	0.100	0.098	0.106	0.097	0.101	0.102
4th Max. 8-hr.	661	ppm	75th	0.093	0.094	0.097	0.087	0.090	0.090	0.096	0.090	0.091	0.095
4th Max. 8-hr.	661	ppm	50th	0.083	0.083	0.085	0.079	0.081	0.082	0.088	0.083	0.082	0.087
4th Max. 8-hr.	661	ppm	25th	0.075	0.075	0.073	0.073	0.073	0.074	0.077	0.075	0.074	0.077
4th Max. 8-hr.	661	ppm	10th	0.067	0.066	0.065	0.066	0.063	0.067	0.067	0.068	0.065	0.069
4th Max. 8-hr.	661	ppm	5th	0.060	0.059	0.059	0.061	0.058	0.060	0.061	0.063	0.059	0.060
4th Max. 8-hr.	661	ppm	Arith. Mean	0.086	0.085	0.086	0.081	0.082	0.083	0.087	0.083	0.083	0.086

**Table A-1.** National Air Quality Trends Statistics for Criteria Pollutants, 1989–1998 (continued)

Statistic	# of Sites	Units	Percentile	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b><i>PM<sub>10</sub></i></b>													
Annual Avg.	934	µg/m3	95th	51.5	46.4	46.4	42.0	41.5	39.4	38.8	37.6	37.5	35.8
Annual Avg.	934	µg/m3	90th	43.3	39.8	39.9	36.4	35.9	36.4	34.8	33.0	32.4	31.8
Annual Avg.	934	µg/m3	75th	36.3	34.5	33.7	31.0	30.2	30.4	29.1	27.7	27.3	27.7
Annual Avg.	934	µg/m3	50th	30.1	28.2	28.2	25.8	25.4	25.6	24.3	23.2	23.2	23.6
Annual Avg.	934	µg/m3	25th	25.3	23.4	23.6	22.0	21.0	21.1	19.8	19.3	19.4	19.3
Annual Avg.	934	µg/m3	10th	20.1	18.9	18.4	17.6	16.7	16.7	15.5	16.0	15.3	15.2
Annual Avg.	934	µg/m3	5th	17.1	15.7	14.5	13.6	12.7	13.1	12.2	12.2	12.1	12.3
Annual Avg.	934	µg/m3	Arith. Mean	31.7	29.4	29.1	26.8	26.0	26.0	24.9	23.9	23.8	23.7
<b><i>Sulfur Dioxide</i></b>													
Annual Mean	482	ppm	95th	0.0183	0.0175	0.0162	0.0154	0.0153	0.0143	0.0115	0.0113	0.0107	0.0106
Annual Mean	482	ppm	90th	0.0153	0.0146	0.0138	0.0128	0.0126	0.0122	0.0101	0.0097	0.0090	0.0095
Annual Mean	482	ppm	75th	0.0115	0.0107	0.0099	0.0095	0.0092	0.0090	0.0074	0.0074	0.0071	0.0069
Annual Mean	482	ppm	50th	0.0080	0.0077	0.0076	0.0069	0.0067	0.0065	0.0051	0.0053	0.0051	0.0049
Annual Mean	482	ppm	25th	0.0048	0.0044	0.0046	0.0043	0.0040	0.0037	0.0033	0.0032	0.0031	0.0032
Annual Mean	482	ppm	10th	0.0024	0.0022	0.0022	0.0020	0.0022	0.0021	0.0018	0.0018	0.0018	0.0019
Annual Mean	482	ppm	5th	0.0016	0.0015	0.0016	0.0014	0.0015	0.0015	0.0014	0.0014	0.0014	0.0014
Annual Mean	482	ppm	Arith. Mean	0.0087	0.0082	0.0079	0.0074	0.0072	0.0069	0.0056	0.0056	0.0054	0.0053
2nd Max. 24-hr.	486	ppm	95th	0.0960	0.0870	0.0750	0.0750	0.0720	0.0720	0.0555	0.0600	0.0520	0.0520
2nd Max. 24-hr.	486	ppm	90th	0.0740	0.0660	0.0610	0.0610	0.0580	0.0620	0.0470	0.0470	0.0450	0.0430
2nd Max. 24-hr.	486	ppm	75th	0.0520	0.0480	0.0440	0.0440	0.0420	0.0440	0.0330	0.0330	0.0330	0.0310
2nd Max. 24-hr.	486	ppm	50th	0.0380	0.0330	0.0320	0.0300	0.0280	0.0320	0.0220	0.0230	0.0230	0.0220
2nd Max. 24-hr.	486	ppm	25th	0.0230	0.0210	0.0200	0.0190	0.0180	0.0190	0.0150	0.0150	0.0140	0.0140
2nd Max. 24-hr.	486	ppm	10th	0.0110	0.0100	0.0100	0.0100	0.0100	0.0090	0.0080	0.0090	0.0070	0.0080
2nd Max. 24-hr.	486	ppm	5th	0.0070	0.0060	0.0070	0.0060	0.0055	0.0050	0.0050	0.0050	0.0050	0.0050
2nd Max. 24-hr.	486	ppm	Arith. Mean	0.0414	0.0375	0.0348	0.0339	0.0324	0.0340	0.0257	0.0262	0.0250	0.0240

**Table A-2.** National Carbon Monoxide Emissions Estimates, 1989–1998 (thousand short tons)

<b>Source Category</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>FUEL COMBUSTION</b>	<b>7,443</b>	<b>5,510</b>	<b>5,856</b>	<b>6,155</b>	<b>5,587</b>	<b>5,519</b>	<b>5,934</b>	<b>6,148</b>	<b>5,423</b>	<b>5,374</b>
Electric Utilities	321	363	349	350	363	370	372	391	405	417
<i>Coal</i>	233	234	234	236	246	247	250	248	254	254
<i>Oil</i>	26	20	19	15	16	15	10	11	12	17
<i>Gas</i>	51	51	51	51	49	53	55	79	83	89
<i>Internal Combustion</i>	11	57	45	47	51	55	58	54	56	57
Industrial	672	879	920	955	1,043	1,041	1,056	1,154	1,126	1,114
<i>Coal</i>	87	105	101	102	101	100	98	109	108	105
<i>Oil</i>	46	74	60	64	66	66	71	60	58	56
<i>Gas</i>	271	226	284	300	322	337	345	335	334	330
<i>Other</i>	173	279	267	264	286	287	297	349	333	335
<i>Internal Combustion</i>	96	195	208	227	268	251	245	301	295	289
Other	6,450	4,269	4,587	4,849	4,181	4,108	4,506	4,603	3,892	3,843
<i>Residential Wood</i>	6,161	3,781	4,090	4,332	3,679	3,607	3,999	4,200	3,487	3,452
<i>Other</i>	153	262	281	292	274	268	273	260	257	247
<b>INDUSTRIAL PROCESSES</b>	<b>7,013</b>	<b>5,852</b>	<b>5,740</b>	<b>5,683</b>	<b>5,898</b>	<b>5,838</b>	<b>5,790</b>	<b>4,692</b>	<b>4,844</b>	<b>4,860</b>
Chemical & Allied Processing	1,925	1,183	1,127	1,112	1,093	1,171	1,223	1,100	1,119	1,129
Metals Processing	2,132	2,640	2,571	2,496	2,536	2,475	2,380	1,429	1,510	1,495
Petroleum & Related Industries	436	333	345	371	371	338	348	356	369	368
Other Industrial Processes	716	537	548	544	594	600	624	600	623	632
Solvent Utilization	2	5	5	5	5	5	6	2	2	2
Storage & Transport	55	76	28	17	51	24	25	78	80	80
Waste Disposal & Recycling	1,747	1,079	1,116	1,138	1,248	1,225	1,185	1,127	1,141	1,154
<b>TRANSPORTATION</b>	<b>83,829</b>	<b>76,039</b>	<b>80,659</b>	<b>78,858</b>	<b>79,593</b>	<b>81,629</b>	<b>74,331</b>	<b>73,494</b>	<b>71,980</b>	<b>70,300</b>
On-Road Vehicles	66,050	57,848	62,074	59,859	60,202	61,833	54,106	53,262	51,666	50,386
Non-Road Sources	17,779	18,191	18,585	18,999	19,391	19,796	20,224	20,232	20,314	19,914
<b>MISCELLANEOUS</b>	<b>8,153</b>	<b>11,122</b>	<b>8,618</b>	<b>6,934</b>	<b>7,082</b>	<b>9,657</b>	<b>7,298</b>	<b>11,144</b>	<b>12,164</b>	<b>8,920</b>
Fires	8,153	11,090	8,589	6,904	7,048	9,628	7,270	11,121	12,141	8,896
Other	0	32	28	30	34	29	29	23	24	24
<b>TOTAL ALL SOURCES</b>	<b>106,439</b>	<b>98,523</b>	<b>100,872</b>	<b>97,630</b>	<b>98,160</b>	<b>102,643</b>	<b>93,353</b>	<b>95,479</b>	<b>94,410</b>	<b>89,454</b>

**Note:** Some columns may not sum to totals due to rounding.

**Table A-3.** National Lead Emissions Estimates, 1989–1998 (short tons)

<b>Source Category</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>FUEL COMBUSTION</b>	<b>505</b>	<b>500</b>	<b>495</b>	<b>491</b>	<b>497</b>	<b>496</b>	<b>490</b>	<b>492</b>	<b>493</b>	<b>503</b>
Electric Utilities	67	64	61	59	62	62	57	61	64	68
<i>Coal</i>	46	46	46	47	50	50	50	53	54	54
<i>Oil</i>	21	18	15	12	12	12	7	8	10	14
Industrial	18	18	18	18	19	19	18	16	16	19
<i>Coal</i>	14	14	15	14	14	14	14	13	14	13
<i>Oil</i>	4	3	3	4	5	5	4	3	2	5
Other	420	418	416	414	416	415	415	415	413	416
<i>Commercial/Institutional Coal</i>	4	4	3	4	4	3	4	5	5	5
<i>Commercial/Institutional Oil</i>	4	4	4	4	4	4	3	3	2	4
<i>Misc. Fuel Comb. (Except Residential)</i>	400	400	400	400	400	400	400	400	400	400
<i>Residential Other</i>	12	10	9	7	8	8	8	7	6	6
<b>INDUSTRIAL PROCESSES</b>	<b>3,161</b>	<b>3,278</b>	<b>3,081</b>	<b>2,736</b>	<b>2,872</b>	<b>3,007</b>	<b>2,875</b>	<b>2,882</b>	<b>2,937</b>	<b>2,948</b>
Chemical & Allied Processing	136	136	132	93	92	96	163	167	188	175
Metals Processing	2,088	2,170	1,974	1,774	1,900	2,027	2,049	2,055	2,080	2,098
Other Industrial Processes	173	169	167	56	55	54	59	51	54	54
Waste Disposal & Recycling	765	804	808	812	825	830	604	609	615	620
<b>TRANSPORTATION</b>	<b>1,802</b>	<b>1,197</b>	<b>592</b>	<b>584</b>	<b>547</b>	<b>544</b>	<b>564</b>	<b>525</b>	<b>523</b>	<b>522</b>
On-Road Vehicles	982	421	18	18	19	19	19	19	20	19
Non-Road Sources	820	776	574	565	529	525	544	505	503	503
<b>TOTAL ALL SOURCES</b>	<b>5,468</b>	<b>4,975</b>	<b>4,169</b>	<b>3,810</b>	<b>3,916</b>	<b>4,047</b>	<b>3,929</b>	<b>3,899</b>	<b>3,952</b>	<b>3,973</b>

**Note:** Some columns may not sum to totals due to rounding.

**Table A-4.** National Nitrogen Oxides Emissions Estimates, 1989–1998 (thousand short tons)

<b>Source Category</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>FUEL COMBUSTION</b>	<b>10,537</b>	<b>10,895</b>	<b>10,779</b>	<b>10,928</b>	<b>11,111</b>	<b>11,015</b>	<b>10,827</b>	<b>10,354</b>	<b>10,403</b>	<b>10,189</b>
Electric Utilities	6,593	6,663	6,519	6,504	6,651	6,565	6,384	6,057	6,191	6,103
Coal	5,676	5,642	5,559	5,579	5,744	5,636	5,579	5,542	5,609	5,395
Oil	285	221	212	170	180	163	96	103	129	208
Gas	582	565	580	579	551	591	562	265	299	344
Internal Combustion	49	235	168	175	176	175	148	147	154	156
Industrial	3,209	3,035	2,979	3,071	3,151	3,147	3,144	3,072	3,019	2,969
Coal	615	585	570	574	589	602	597	642	636	622
Oil	294	265	237	244	245	241	247	231	223	216
Gas	1,625	1,182	1,250	1,301	1,330	1,333	1,324	1,184	1,168	1,154
Other	120	131	129	126	124	124	123	124	119	119
Internal Combustion	556	874	793	825	863	846	854	967	948	932
Other	736	1,196	1,281	1,353	1,308	1,303	1,298	1,224	1,193	1,117
Commercial/Institutional Coal	38	40	36	38	40	40	38	33	34	36
Commercial/Institutional Oil	106	97	88	93	93	95	103	92	94	77
Commercial/Institutional Gas	159	200	210	225	232	237	231	238	243	234
Misc. Fuel Comb. (Except Residential)	11	34	32	28	31	31	30	26	27	28
Residential Wood	75	46	50	53	45	44	49	51	43	42
Residential Other	347	780	865	916	867	857	847	783	752	700
<b>INDUSTRIAL PROCESSES</b>	<b>852</b>	<b>892</b>	<b>816</b>	<b>857</b>	<b>861</b>	<b>878</b>	<b>873</b>	<b>854</b>	<b>884</b>	<b>893</b>
Chemical & Allied Processing	273	168	165	163	155	160	158	146	149	152
Metals Processing	83	97	76	81	83	91	98	83	88	88
Petroleum & Related Industries	97	153	121	148	123	117	110	134	138	138
Other Industrial Processes	311	378	352	361	370	389	399	386	404	408
Solvent Utilization	3	1	2	3	3	3	3	2	2	2
Storage & Transport	2	3	6	5	5	5	6	7	7	7
Waste Disposal & Recycling	84	91	95	96	123	114	99	95	96	97
<b>TRANSPORTATION</b>	<b>12,210</b>	<b>11,893</b>	<b>12,368</b>	<b>12,556</b>	<b>12,748</b>	<b>13,090</b>	<b>12,954</b>	<b>13,016</b>	<b>13,126</b>	<b>13,044</b>
On-Road Vehicles	7,682	7,089	7,469	7,622	7,806	8,075	7,826	7,848	7,875	7,765
Non-Road Sources	4,528	4,804	4,900	4,934	4,942	5,015	5,128	5,167	5,251	5,280
<b>MISCELLANEOUS</b>	<b>293</b>	<b>369</b>	<b>286</b>	<b>255</b>	<b>241</b>	<b>390</b>	<b>267</b>	<b>452</b>	<b>411</b>	<b>328</b>
<b>TOTAL ALL SOURCES</b>	<b>23,893</b>	<b>24,049</b>	<b>24,249</b>	<b>24,596</b>	<b>24,961</b>	<b>25,372</b>	<b>24,921</b>	<b>24,676</b>	<b>24,824</b>	<b>24,454</b>

**Note:** Some columns may not sum to totals due to rounding.

**Table A-5.** National Volatile Organic Compounds Emissions Estimates, 1989–1998 (thousand short tons)

<b>Source Category</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>FUEL COMBUSTION</b>	<b>1,372</b>	<b>1,005</b>	<b>1,075</b>	<b>1,114</b>	<b>993</b>	<b>989</b>	<b>1,073</b>	<b>1,036</b>	<b>900</b>	<b>893</b>
Electric Utilities	37	47	44	44	45	45	44	49	51	54
<i>Coal</i>	27	27	27	27	29	29	29	28	29	29
<i>Oil</i>	7	6	5	4	4	4	3	3	3	5
<i>Gas</i>	2	2	2	2	2	2	2	8	8	9
<i>Internal Combustion</i>	1	12	10	10	10	10	10	10	11	11
Industrial	134	182	196	187	186	196	206	166	162	161
<i>Coal</i>	7	7	6	7	6	8	6	7	6	6
<i>Oil</i>	16	12	11	12	12	12	12	8	8	8
<i>Gas</i>	61	58	60	52	51	63	73	49	49	49
<i>Other</i>	36	51	51	49	51	50	50	40	38	38
<i>Internal Combustion</i>	15	54	68	66	66	64	65	62	61	60
Other	1,200	776	835	884	762	748	823	821	686	678
<i>Residential Wood</i>	1,169	718	776	822	698	684	759	759	624	620
<i>Other</i>	31	58	59	62	64	63	64	62	61	58
<b>INDUSTRIAL PROCESSES</b>	<b>10,755</b>	<b>10,000</b>	<b>10,178</b>	<b>10,380</b>	<b>10,578</b>	<b>10,738</b>	<b>10,780</b>	<b>8,591</b>	<b>8,812</b>	<b>8,452</b>
Chemical & Allied Processing	980	634	710	715	701	691	660	388	390	396
Metals Processing	74	122	123	124	124	126	125	72	76	75
Petroleum & Related Industries	639	612	640	632	649	647	642	488	499	496
Other Industrial Processes	403	401	391	414	442	438	450	428	444	450
Solvent Utilization	5,964	5,750	5,782	5,901	6,016	6,162	6,183	5,506	5,654	5,278
Storage & Transport	1,753	1,495	1,532	1,583	1,600	1,629	1,652	1,286	1,324	1,324
Waste Disposal & Recycling	941	986	999	1,010	1,046	1,046	1,067	423	427	433
<b>TRANSPORTATION</b>	<b>9,744</b>	<b>8,858</b>	<b>9,080</b>	<b>8,665</b>	<b>8,727</b>	<b>9,074</b>	<b>8,401</b>	<b>8,155</b>	<b>7,902</b>	<b>7,786</b>
On-Road Vehicles	7,192	6,313	6,499	6,072	6,103	6,401	5,701	5,490	5,330	5,325
Non-Road Sources	2,552	2,545	2,581	2,594	2,624	2,672	2,699	2,664	2,572	2,461
<b>MISCELLANEOUS</b>	<b>642</b>	<b>1,073</b>	<b>769</b>	<b>500</b>	<b>569</b>	<b>734</b>	<b>564</b>	<b>954</b>	<b>1,263</b>	<b>785</b>
Other Combustion	641	1,049	743	474	544	707	537	891	1,199	721
<i>Fires</i>	641	1,046	740	471	541	704	533	887	1,196	717
<i>Other</i>	NA	3	3	3	3	3	3	3	3	3
Other	1	24	26	26	25	27	28	63	64	65
<b>TOTAL ALL SOURCES</b>	<b>22,513</b>	<b>20,936</b>	<b>21,102</b>	<b>20,659</b>	<b>20,868</b>	<b>21,535</b>	<b>20,817</b>	<b>18,736</b>	<b>18,876</b>	<b>17,917</b>

**Note:** Some columns may not sum to totals due to rounding.

**Table A-6.** National PM<sub>10</sub> Emissions Estimates, 1989–1998 (thousand short tons)

Source Category	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>FUEL COMBUSTION</b>	<b>1,382</b>	<b>1,196</b>	<b>1,147</b>	<b>1,183</b>	<b>1,124</b>	<b>1,113</b>	<b>1,179</b>	<b>1,174</b>	<b>1,089</b>	<b>1,091</b>
Electric Utilities	271	295	257	257	279	273	268	287	293	302
<i>Coal</i>	255	265	232	234	253	246	244	264	268	273
<i>Oil</i>	12	9	10	7	9	8	5	5	6	9
<i>Gas</i>	1	1	1	0	1	1	1	1	1	1
<i>Internal Combustion</i>	3	20	15	16	17	17	18	18	18	19
Industrial	243	270	233	243	257	270	302	255	249	245
<i>Coal</i>	70	84	72	74	71	70	70	77	76	74
<i>Oil</i>	48	52	44	45	45	44	49	46	43	42
<i>Gas</i>	44	41	34	40	43	43	45	43	42	42
<i>Other</i>	78	87	72	74	86	74	73	77	73	74
<i>Internal Combustion</i>	3	6	10	11	12	38	64	16	16	15
Other	869	631	657	683	588	570	610	632	548	544
<i>Residential Wood</i>	817	501	535	558	464	446	484	503	415	411
<i>Other</i>	52	130	122	124	124	125	126	129	133	133
<b>INDUSTRIAL PROCESSES</b>	<b>1,276</b>	<b>1,306</b>	<b>1,264</b>	<b>1,269</b>	<b>1,240</b>	<b>1,219</b>	<b>1,231</b>	<b>985</b>	<b>1,010</b>	<b>1,016</b>
Chemical & Allied Processing	63	77	68	71	66	76	67	63	64	65
Metals Processing	211	214	251	250	181	184	212	164	171	171
Petroleum & Related Industries	58	55	43	43	38	38	40	32	32	32
Other Industrial Processes	591	583	520	506	501	495	511	327	337	339
Solvent Utilization	2	4	5	5	6	6	6	6	6	6
Storage & Transport	101	102	101	117	114	106	109	90	93	94
Waste Disposal & Recycling	251	271	276	278	334	313	287	304	307	310
<b>TRANSPORTATION</b>	<b>844</b>	<b>825</b>	<b>838</b>	<b>833</b>	<b>804</b>	<b>800</b>	<b>749</b>	<b>739</b>	<b>730</b>	<b>718</b>
On-Road Vehicles	367	336	349	343	321	320	293	282	272	257
Non-Road Sources	477	489	489	490	483	480	456	457	458	461
<b>TOTAL ALL SOURCES</b>	<b>3,502</b>	<b>3,327</b>	<b>3,249</b>	<b>3,286</b>	<b>3,168</b>	<b>3,133</b>	<b>3,159</b>	<b>2,898</b>	<b>2,830</b>	<b>2,825</b>

**Table A-7.** Miscellaneous and Natural Particulate Matter Emissions Estimates, 1989–1998 (thousand short tons)

Source Category	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>MISCELLANEOUS</b>	<b>37,461</b>	<b>24,542</b>	<b>24,234</b>	<b>23,959</b>	<b>24,329</b>	<b>25,620</b>	<b>22,766</b>	<b>24,836</b>	<b>26,089</b>	<b>26,609</b>
Agriculture & Forestry	7,320	5,292	5,234	5,017	4,575	4,845	4,902	4,905	4,971	4,970
Other Combustion	912	1,181	924	770	801	1,053	850	1,254	1,313	1,018
<i>Fires</i>	853	1,159	902	747	777	1,029	826	1,235	1,292	997
<i>Other</i>	59	22	23	23	23	24	24	19	21	21
Cooling Towers	NA	0	0	0	0	0	1	2	2	2
Fugitive Dust	29,229	18,069	18,076	18,171	18,954	19,722	17,013	18,675	19,804	20,619
<i>Wind Erosion</i>	0	1	1	1	1	1	1	1	1	1
<i>Unpaved Roads</i>	11,798	11,234	11,206	10,918	11,430	11,370	10,362	12,059	12,530	12,668
<i>Paved Roads</i>	5,769	2,248	2,399	2,423	2,462	2,538	2,409	2,390	2,538	2,618
<i>Construction</i>	11,269	4,249	4,092	4,460	4,651	5,245	3,654	3,578	4,022	4,545
<i>Other</i>	392	336	377	369	409	569	586	646	713	788
<b>NAT. SOURCES (wind erosion)</b>	<b>12,101</b>	<b>2,092</b>	<b>2,077</b>	<b>2,227</b>	<b>509</b>	<b>2,160</b>	<b>1,146</b>	<b>5,307</b>	<b>5,307</b>	<b>5,307</b>
<b>TOTAL ALL SOURCES</b>	<b>49,562</b>	<b>26,635</b>	<b>26,311</b>	<b>26,186</b>	<b>24,838</b>	<b>27,780</b>	<b>23,912</b>	<b>30,143</b>	<b>31,396</b>	<b>31,916</b>

**Note:** Some columns may not sum to totals due to rounding.

**Table A-8.** National Sulfur Dioxide Emissions Estimates, 1989–1998 (thousand short tons)

<b>Source Category</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>FUEL COMBUSTION</b>	<b>19,924</b>	<b>20,290</b>	<b>19,796</b>	<b>19,493</b>	<b>19,245</b>	<b>18,887</b>	<b>16,230</b>	<b>16,320</b>	<b>16,732</b>	<b>16,722</b>
Electric Utilities	16,215	15,909	15,784	15,416	15,189	14,889	12,080	12,631	13,090	13,217
<i>Coal</i>	15,404	15,220	15,087	14,824	14,527	14,313	11,603	12,137	12,542	12,426
<i>Oil</i>	779	639	652	546	612	522	413	436	488	730
<i>Gas</i>	1	1	1	1	1	1	9	3	1	2
<i>Internal Combustion</i>	30	49	45	46	49	53	55	56	59	60
Industrial	3,086	3,550	3,256	3,292	3,284	3,218	3,357	3,022	2,964	2,895
<i>Coal</i>	1,840	1,914	1,805	1,783	1,763	1,740	1,728	1,536	1,521	1,485
<i>Oil</i>	812	927	779	801	809	777	912	844	801	773
<i>Gas</i>	346	543	516	552	555	542	548	556	563	558
<i>Other</i>	82	158	142	140	140	141	147	140	134	133
<i>Internal Combustion</i>	6	9	14	16	17	19	23	17	16	16
Other	624	831	755	784	772	780	793	667	677	609
<i>Commercial/Institutional Coal</i>	169	212	184	190	193	192	200	177	183	194
<i>Commercial/Institutional Oil</i>	274	425	376	396	381	391	397	338	345	275
<i>Commercial/Institutional Gas</i>	2	7	7	7	8	8	8	10	10	10
<i>Misc. Fuel Comb. (Except Residential)</i>	1	6	6	6	6	6	5	4	4	4
<i>Residential Wood</i>	11	7	7	8	6	6	7	7	6	6
<i>Residential Other</i>	167	175	176	177	178	177	176	131	130	121
<b>INDUSTRIAL PROCESSES</b>	<b>2,010</b>	<b>1,900</b>	<b>1,721</b>	<b>1,758</b>	<b>1,723</b>	<b>1,676</b>	<b>1,637</b>	<b>1,452</b>	<b>1,503</b>	<b>1,503</b>
Chemical & Allied Processing	440	297	280	278	269	275	286	291	296	299
Metals Processing	695	726	612	615	603	562	530	429	450	444
Petroleum & Related Industries	429	430	378	416	383	379	369	337	346	345
Other Industrial Processes	405	399	396	396	392	398	403	350	365	370
Solvent Utilization	1	0	0	1	1	1	1	1	1	1
Storage & Transport	5	7	10	9	5	2	2	3	3	3
Waste Disposal & Recycling	36	42	44	44	71	60	47	41	42	42
<b>TRANSPORTATION</b>	<b>1,349</b>	<b>1,458</b>	<b>1,513</b>	<b>1,546</b>	<b>1,489</b>	<b>1,292</b>	<b>1,304</b>	<b>1,332</b>	<b>1,371</b>	<b>1,410</b>
On-Road Vehicles	570	542	570	578	517	301	304	316	322	326
Non-Road Sources	779	916	944	968	972	990	999	1,016	1,050	1,084
<b>MISCELLANEOUS</b>	<b>11</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>10</b>	<b>15</b>	<b>10</b>	<b>17</b>	<b>16</b>	<b>12</b>
<b>TOTAL ALL SOURCES</b>	<b>23,293</b>	<b>23,660</b>	<b>23,041</b>	<b>22,806</b>	<b>22,466</b>	<b>21,870</b>	<b>19,181</b>	<b>19,121</b>	<b>19,622</b>	<b>19,647</b>

**Note:** Some columns may not sum to totals due to rounding.

**Table A-9.** National Long-Term Air Quality Trends, 1979–1998

Year	CO 2nd Max. 8-hr ppm	Pb Max. Qtr. µg/m <sup>3</sup>	NO <sub>2</sub> Arith. Mean ppm	Ozone 2nd Max. 1-hr ppm	PM <sub>10</sub> Wtd. Arith. Mean µg/m <sup>3</sup>	SO <sub>2</sub> Arith. Mean ppm
<b>1979–88</b>	<b>(251 sites)</b>	<b>(184 sites)</b>	<b>(127 sites)</b>	<b>(401 sites)</b>	—	<b>(389 sites)</b>
1979	9.1	0.97	0.024	0.133	—	0.0113
1980	8.5	0.77	0.024	0.135	—	0.0105
1981	8.2	0.61	0.023	0.125	—	0.0102
1982	7.8	0.55	0.022	0.123	—	0.0093
1983	7.7	0.41	0.022	0.136	—	0.0090
1984	7.7	0.37	0.023	0.123	—	0.0092
1985	7.0	0.24	0.022	0.122	—	0.0086
1986	7.0	0.15	0.022	0.118	—	0.0084
1987	6.6	0.12	0.022	0.124	—	0.0082
1988	6.5	0.11	0.022	0.135	—	0.0083
<b>1989–98</b>	<b>(363 sites)</b>	<b>(189 sites)</b>	<b>(225 sites)</b>	<b>(661 sites)</b>	<b>(934 sites)</b>	<b>(483 sites)</b>
1989	6.2	0.09	0.021	0.114	31.7	0.0087
1990	5.8	0.09	0.020	0.112	29.4	0.0082
1991	5.6	0.07	0.020	0.113	29.1	0.0079
1992	5.2	0.06	0.019	0.105	26.8	0.0074
1993	4.9	0.05	0.019	0.108	26.0	0.0072
1994	5.1	0.05	0.020	0.107	26.0	0.0070
1995	4.5	0.04	0.019	0.112	24.9	0.0057
1996	4.2	0.04	0.019	0.106	23.9	0.0056
1997	3.9	0.04	0.018	0.105	23.8	0.0054
1998	3.8	0.04	0.018	0.110	23.7	0.0053

**Table A-10.** National Air Quality Trends by Monitoring Location, 1989–1998

Statistic	# of Sites	Units	Location	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>Carbon Monoxide</b>													
2nd Max. 8-hr.	12	ppm	Rural	2.8	2.8	2.8	2.5	2.1	2.3	2.4	1.9	1.8	1.8
2nd Max. 8-hr.	148	ppm	Suburban	6.0	5.6	5.3	5.0	4.9	5.0	4.3	4.1	3.9	3.8
2nd Max. 8-hr.	200	ppm	Urban	6.6	6.1	6.0	5.5	5.0	5.3	4.8	4.5	4.1	3.9
<b>Lead</b>													
Max. Qtr.	5	µg/m <sup>3</sup>	Rural	0.06	0.06	0.07	0.07	0.06	0.04	0.04	0.03	0.03	0.03
Max. Qtr.	98	µg/m <sup>3</sup>	Suburban	0.08	0.07	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03
Max. Qtr.	82	µg/m <sup>3</sup>	Urban	0.09	0.11	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.04
<b>Nitrogen Dioxide</b>													
Arith. Mean	39	ppm	Rural	0.009	0.009	0.009	0.008	0.008	0.008	0.008	0.008	0.007	0.007
Arith. Mean	104	ppm	Suburban	0.022	0.021	0.020	0.020	0.020	0.020	0.020	0.019	0.018	0.018
Arith. Mean	80	ppm	Urban	0.026	0.025	0.024	0.024	0.024	0.025	0.024	0.023	0.023	0.023
<b>Ozone</b>													
2nd Max. 1-hr.	222	ppm	Rural	0.108	0.108	0.106	0.101	0.103	0.102	0.107	0.103	0.101	0.107
2nd Max. 1-hr.	304	ppm	Suburban	0.118	0.116	0.118	0.109	0.111	0.111	0.116	0.108	0.109	0.114
2nd Max. 1-hr.	117	ppm	Urban	0.114	0.110	0.111	0.105	0.105	0.106	0.110	0.106	0.102	0.104
<b>PM<sub>10</sub></b>													
Wtd. Arith. Mean	138	µg/m <sup>3</sup>	Rural	25.6	24.3	23.6	21.8	20.6	20.6	19.3	19.3	18.9	18.9
Wtd. Arith. Mean	355	µg/m <sup>3</sup>	Suburban	32.9	30.6	30.2	27.8	27.1	27.0	26.2	24.9	24.8	24.6
Wtd. Arith. Mean	418	µg/m <sup>3</sup>	Urban	33.0	30.4	30.5	27.9	27.2	27.3	26.0	25.1	24.9	25.0
<b>Sulfur Dioxide</b>													
Arith. Mean	122	ppm	Rural	0.0071	0.0068	0.0066	0.0063	0.0064	0.0060	0.0053	0.0051	0.0048	0.0048
Arith. Mean	213	ppm	Suburban	0.0091	0.0086	0.0083	0.0077	0.0075	0.0072	0.0057	0.0058	0.0057	0.0056
Arith. Mean	137	ppm	Urban	0.0099	0.0091	0.0087	0.0080	0.0077	0.0076	0.0060	0.0059	0.0057	0.0055

**Table A-11.** National Air Quality Trends Statistics by EPA Region, 1989–1998

	<b>Statistic</b>	<b># of Sites</b>	<b>Units</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>Region 1</b>													
CO	2nd Max. 8-hr.	17	ppm	5.8	6.1	5.6	5.7	4.8	6.0	5.4	4.8	4.2	3.7
Pb	Max. Qtr.	—	µg/m <sup>3</sup>	—	—	—	—	—	—	—	—	—	—
NO <sub>2</sub>	Arith. Mean	14	ppm	0.023	0.022	0.022	0.021	0.022	0.022	0.020	0.020	0.020	0.020
O <sub>3</sub>	2nd Max. 1-hr.	38	ppm	0.122	0.119	0.130	0.110	0.119	0.115	0.118	0.103	0.117	0.107
O <sub>3</sub>	4th Max. 8-hr.	38	ppm	0.092	0.091	0.099	0.086	0.089	0.087	0.091	0.081	0.090	0.084
PM <sub>10</sub>	Wtd. Arith. Mean	72	µg/m <sup>3</sup>	24.4	22.8	23.5	20.7	20.2	20.7	18.7	19.3	19.7	19.8
SO <sub>2</sub>	Arith. Mean	50	ppm	0.0088	0.0080	0.0077	0.0073	0.0069	0.0067	0.0053	0.0052	0.0050	0.0050
<b>Region 2</b>													
CO	2nd Max. 8-hr.	27	ppm	6.4	5.7	5.7	5.1	4.6	5.3	4.6	4.1	3.6	3.3
Pb	Max. Qtr.	4	µg/m <sup>3</sup>	0.09	0.10	0.07	0.06	0.07	0.07	0.06	0.06	0.06	0.06
NO <sub>2</sub>	Arith. Mean	12	ppm	0.031	0.030	0.029	0.028	0.028	0.029	0.027	0.028	0.027	0.027
O <sub>3</sub>	2nd Max. 1-hr.	34	ppm	0.116	0.122	0.124	0.109	0.111	0.105	0.115	0.104	0.111	0.109
O <sub>3</sub>	4th Max. 8-hr.	34	ppm	0.093	0.096	0.101	0.085	0.088	0.085	0.095	0.083	0.093	0.088
PM <sub>10</sub>	Wtd. Arith. Mean	68	µg/m <sup>3</sup>	28.8	26.6	27.0	24.2	24.3	24.8	22.1	22.9	23.5	23.2
SO <sub>2</sub>	Arith. Mean	41	ppm	0.0105	0.0094	0.0096	0.0089	0.0081	0.0083	0.0064	0.0064	0.0058	0.0057
<b>Region 3</b>													
CO	2nd Max. 8-hr.	40	ppm	5.5	5.1	4.6	4.3	4.2	4.7	4.0	3.7	3.4	3.1
Pb	Max. Qtr.	25	µg/m <sup>3</sup>	0.09	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.03	0.03
NO <sub>2</sub>	Arith. Mean	35	ppm	0.022	0.021	0.021	0.021	0.021	0.022	0.020	0.021	0.020	0.020
O <sub>3</sub>	2nd Max. 1-hr.	71	ppm	0.109	0.110	0.118	0.102	0.115	0.111	0.116	0.105	0.116	0.115
O <sub>3</sub>	4th Max. 8-hr.	71	ppm	0.087	0.088	0.096	0.082	0.092	0.088	0.094	0.085	0.093	0.095
PM <sub>10</sub>	Wtd. Arith. Mean	67	µg/m <sup>3</sup>	32.2	29.7	30.6	26.5	26.8	27.7	26.6	25.2	25.3	25.1
SO <sub>2</sub>	Arith. Mean	71	ppm	0.0134	0.0126	0.0120	0.0110	0.0111	0.0112	0.0084	0.0085	0.0089	0.0086
<b>Region 4</b>													
CO	2nd Max. 8-hr.	55	ppm	6.0	5.3	5.0	5.0	5.0	4.7	4.3	3.8	4.0	3.7
Pb	Max. Qtr.	26	µg/m <sup>3</sup>	0.07	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03
NO <sub>2</sub>	Arith. Mean	25	ppm	0.015	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014
O <sub>3</sub>	2nd Max. 1-hr.	115	ppm	0.100	0.105	0.097	0.095	0.104	0.099	0.104	0.102	0.103	0.112
O <sub>3</sub>	4th Max. 8-hr.	115	ppm	0.078	0.083	0.075	0.077	0.081	0.080	0.082	0.081	0.082	0.091
PM <sub>10</sub>	Wtd. Arith. Mean	130	µg/m <sup>3</sup>	30.0	30.0	28.6	26.5	25.8	25.5	25.2	23.9	23.9	24.5
SO <sub>2</sub>	Arith. Mean	67	ppm	0.0062	0.0061	0.0058	0.0056	0.0056	0.0052	0.0044	0.0046	0.0045	0.0047
<b>Region 5</b>													
CO	2nd Max. 8-hr.	43	ppm	5.7	5.1	4.8	4.4	4.4	5.3	4.1	3.3	3.1	3.2
Pb	Max. Qtr.	47	µg/m <sup>3</sup>	0.11	0.16	0.09	0.09	0.08	0.08	0.06	0.06	0.06	0.05
NO <sub>2</sub>	Arith. Mean	14	ppm	0.023	0.021	0.021	0.022	0.022	0.024	0.023	0.023	0.022	0.023
O <sub>3</sub>	2nd Max. 1-hr.	126	ppm	0.108	0.102	0.112	0.098	0.097	0.105	0.111	0.103	0.102	0.105
O <sub>3</sub>	4th Max. 8-hr.	126	ppm	0.086	0.082	0.089	0.079	0.077	0.084	0.090	0.085	0.083	0.085
PM <sub>10</sub>	Wtd. Arith. Mean	161	µg/m <sup>3</sup>	33.4	30.9	30.2	27.8	26.4	28.1	27.3	24.7	24.8	26.2
SO <sub>2</sub>	Arith. Mean	120	ppm	0.0098	0.0093	0.0091	0.0080	0.0081	0.0076	0.0061	0.0061	0.0059	0.0059

**Table A-11.** National Air Quality Trends Statistics by EPA Region, 1989–1998 (continued)

	<b>Statistic</b>	<b># of Sites</b>	<b>Units</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>Region 6</b>													
CO	2nd Max. 8-hr.	31	ppm	6.2	6.2	5.4	5.4	5.3	4.7	4.4	4.9	4.3	4.0
Pb	Max. Qtr.	25	µg/m <sup>3</sup>	0.12	0.10	0.10	0.08	0.07	0.05	0.06	0.07	0.04	0.04
NO <sub>2</sub>	Arith. Mean	22	ppm	0.016	0.015	0.015	0.016	0.015	0.017	0.016	0.016	0.016	0.015
O <sub>3</sub>	2nd Max. 1-hr.	69	ppm	0.119	0.122	0.113	0.109	0.111	0.109	0.122	0.110	0.114	0.116
O <sub>3</sub>	4th Max. 8-hr.	69	ppm	0.085	0.087	0.080	0.079	0.080	0.082	0.091	0.082	0.083	0.087
PM <sub>10</sub>	Wtd. Arith. Mean	94	µg/m <sup>3</sup>	28.7	25.7	24.3	24.4	23.6	23.8	24.7	23.7	22.3	23.3
SO <sub>2</sub>	Arith. Mean	32	ppm	0.0064	0.0063	0.0060	0.0063	0.0053	0.0046	0.0046	0.0047	0.0043	0.0042
<b>Region 7</b>													
CO	2nd Max. 8-hr.	22	ppm	5.3	4.9	5.1	4.4	4.3	4.2	4.0	4.1	3.7	4.2
Pb	Max. Qtr.	19	µg/m <sup>3</sup>	0.05	0.03	0.03	0.02	0.02	0.01	0.01	0.02	0.04	0.04
NO <sub>2</sub>	Arith. Mean	12	ppm	0.016	0.015	0.015	0.016	0.015	0.016	0.016	0.016	0.016	0.016
O <sub>3</sub>	2nd Max. 1-hr.	29	ppm	0.093	0.090	0.092	0.091	0.088	0.098	0.103	0.094	0.094	0.100
O <sub>3</sub>	4th Max. 8-hr.	29	ppm	0.074	0.070	0.075	0.074	0.066	0.078	0.082	0.075	0.076	0.078
PM <sub>10</sub>	Wtd. Arith. Mean	49	µg/m <sup>3</sup>	32.1	29.7	28.9	28.2	27.0	27.9	27.1	27.5	25.5	25.4
SO <sub>2</sub>	Arith. Mean	30	ppm	0.0083	0.0076	0.0072	0.0064	0.0063	0.0064	0.0053	0.0050	0.0046	0.0044
<b>Region 8</b>													
CO	2nd Max. 8-hr.	17	ppm	7.2	6.6	6.7	6.7	5.8	5.2	5.1	4.8	4.7	3.8
Pb	Max. Qtr.	7	µg/m <sup>3</sup>	0.06	0.06	0.06	0.05	0.06	0.04	0.04	0.03	0.03	0.03
NO <sub>2</sub>	Arith. Mean	14	ppm	0.015	0.014	0.014	0.014	0.014	0.015	0.014	0.014	0.014	0.014
O <sub>3</sub>	2nd Max. 1-hr.	17	ppm	0.095	0.089	0.086	0.083	0.081	0.085	0.084	0.088	0.083	0.093
O <sub>3</sub>	4th Max. 8-hr.	17	ppm	0.073	0.068	0.069	0.065	0.064	0.067	0.067	0.069	0.066	0.075
PM <sub>10</sub>	Wtd. Arith. Mean	106	µg/m <sup>3</sup>	27.2	24.1	25.2	23.8	22.7	22.2	19.3	19.6	18.8	18.8
SO <sub>2</sub>	Arith. Mean	27	ppm	0.0063	0.0061	0.0058	0.0064	0.0062	0.0055	0.0049	0.0041	0.0034	0.0031
<b>Region 9</b>													
CO	2nd Max. 8-hr.	95	ppm	6.7	6.3	6.1	5.3	4.9	5.2	4.6	4.5	4.1	4.1
Pb	Max. Qtr.	31	µg/m <sup>3</sup>	0.07	0.07	0.06	0.03	0.03	0.03	0.03	0.02	0.02	0.02
NO <sub>2</sub>	Arith. Mean	77	ppm	0.023	0.022	0.022	0.021	0.020	0.021	0.020	0.019	0.018	0.018
O <sub>3</sub>	2nd Max. 1-hr.	149	ppm	0.137	0.127	0.126	0.125	0.120	0.117	0.119	0.115	0.102	0.112
O <sub>3</sub>	4th Max. 8-hr.	149	ppm	0.095	0.090	0.090	0.090	0.088	0.086	0.087	0.087	0.078	0.084
PM <sub>10</sub>	Wtd. Arith. Mean	119	µg/m <sup>3</sup>	41.8	38.3	37.5	32.7	31.6	30.6	30.5	28.7	29.1	26.8
SO <sub>2</sub>	Arith. Mean	35	ppm	0.0030	0.0026	0.0025	0.0025	0.0023	0.0022	0.0025	0.0024	0.0022	0.0021
<b>Region 10</b>													
CO	2nd Max. 8-hr.	16	ppm	8.6	7.7	8.0	7.5	6.4	6.1	5.9	5.9	5.5	5.0
Pb	Max. Qtr.	5	µg/m <sup>3</sup>	0.06	0.06	0.06	0.04	0.05	0.05	0.05	0.04	0.05	0.06
NO <sub>2</sub>	Arith. Mean	—	ppm	—	—	—	—	—	—	—	—	—	—
O <sub>3</sub>	2nd Max. 1-hr.	13	ppm	0.083	0.099	0.086	0.087	0.081	0.088	0.086	0.097	0.076	0.097
O <sub>3</sub>	4th Max. 8-hr.	13	ppm	0.061	0.072	0.064	0.069	0.058	0.063	0.063	0.076	0.058	0.068
PM <sub>10</sub>	Wtd. Arith. Mean	63	µg/m <sup>3</sup>	34.3	31.5	32.5	30.7	30.3	26.7	23.2	23.2	23.5	21.1
SO <sub>2</sub>	Arith. Mean	9	ppm	0.0066	0.0071	0.0070	0.0073	0.0066	0.0066	0.0059	0.0051	0.0047	0.0047

Table A-12. Maximum Air Quality Concentrations by County, 1998

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> 24-hr (ppm)
AL	CLAY CO	13,252	.	.	.	0.117	0.094	.	.
AL	COLBERT CO	51,666	.	.	.	.	.	45	0.019
AL	DE KALB CO	54,651	.	.	.	.	.	58	.
AL	ELMORE CO	49,210	.	.	.	0.116	0.091	.	.
AL	ESCAMBIA CO	35,518	.	.	.	.	.	59	.
AL	ETOWAH CO	99,840	.	.	.	.	.	65	.
AL	FRANKLIN CO	27,814	.	.	.	.	.	46	.
AL	GENEVA CO	23,647	.	.	.	0.092	0.077	.	.
AL	HOUSTON CO	81,331	.	.	.	.	.	63	.
AL	JACKSON CO	47,796	.	.	.	.	.	.	0.025
AL	JEFFERSON CO	651,525	4.4	.	.	0.127	0.101	109	0.032
AL	LAWRENCE CO	31,513	.	.	.	0.102	0.085	.	0.011
AL	LIMESTONE CO	54,135	.	.	.	.	.	43	.
AL	MADISON CO	238,912	3.3	.	.	0.118	0.092	57	.
AL	MARENGO CO	23,084	.	.	.	.	.	46	.
AL	MOBILE CO	378,643	.	.	.	0.114	0.098	153	0.073
AL	MONTGOMERY CO	209,085	.	.	.	0.121	0.092	57	0.010
AL	PIKE CO	27,595	.	0.63	.	.	.	56	.
AL	RUSSELL CO	46,860	.	.	.	.	.	56	.
AL	SHELBY CO	99,358	.	.	0.0090	0.137	0.107	52	.
AL	SUMTER CO	16,174	.	.	.	0.083	0.068	.	.
AL	TALLADEGA CO	74,107	.	.	.	.	.	53	.
AL	TUSCALOOSA CO	150,522	.	.	.	.	.	54	.
AL	WALKER CO	67,670	.	.	.	.	.	50	.
AK	ANCHORAGE BOROUGH	226,338	8.4	.	.	.	.	103	.
AK	FAIRBANKS N. STAR BOR.	77,720	10.2	.	.	.	.	47	.
AK	JUNEAU BOROUGH	26,751	.	.	.	.	.	41	.
AK	MATANUSKA-SUSITNA BOR.	39,683	.	.	.	.	.	87	.
AK	YUKON-KOYUKUK CA	8,478	.	.	.	0.057	0.054	.	.
AZ	COCHISE CO	97,624	.	.	.	0.077	0.067	89	.
AZ	COCONINO CO	96,591	.	.	.	0.076	0.072	.	.
AZ	GRAHAM CO	26,554	.	.	.	.	.	68	.
AZ	MARICOPA CO	2,122,101	8.1	.	0.0350	0.113	0.090	208	0.018
AZ	PIMA CO	666,880	4.0	.	0.0165	0.094	0.077	78	0.004
AZ	PINAL CO	116,379	.	.	.	.	.	.	0.027
AZ	SANTA CRUZ CO	29,676	.	.	.	.	.	171	.
AZ	YAVAPAI CO	107,714	.	.	.	.	.	30	.
AZ	YUMA CO	106,895	.	.	.	0.101	0.089	.	.
AR	ARKANSAS CO	21,653	.	.	.	.	.	73	.
AR	ASHLEY CO	24,319	.	.	.	.	.	52	.
AR	CRAIGHEAD CO	68,956	.	.	.	.	.	54	.
AR	CRITTENDEN CO	49,939	.	.	.	0.101	0.086	.	.
AR	GARLAND CO	73,397	.	.	.	.	.	57	.
AR	JEFFERSON CO	85,487	.	.	.	.	.	47	.
AR	MARION CO	12,001	.	.	.	.	.	35	.
AR	MILLER CO	38,467	.	.	.	.	.	53	0.015
AR	MONTGOMERY CO	7,841	.	.	.	0.092	0.071	.	.
AR	NEWTON CO	7,666	.	.	.	0.084	0.078	.	.
AR	OUACHITA CO	30,574	.	.	.	.	.	55	.
AR	PHILLIPS CO	28,838	.	.	.	.	.	43	.
AR	POPE CO	45,883	.	.	.	.	.	47	.
AR	PULASKI CO	349,660	4.8	.	0.0105	0.098	0.082	98	0.006
AR	SEBASTIAN CO	99,590	.	.	.	.	.	49	.
AR	UNION CO	46,719	.	.	.	.	.	57	0.028

Table A-12. Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> 24-hr (ppm)
AR	WASHINGTON CO	113,409	.	.	.	.	.	44	.
AR	WHITE CO	54,676	.	.	.	.	.	51	.
CA	ALAMEDA CO	1,279,182	4.2	0.00	0.0203	0.139	0.096	54	.
CA	AMADOR CO	30,039	1.3	.	.	0.129	0.107	.	.
CA	BUTTE CO	182,120	3.8	0.00	0.0133	0.103	0.078	60	.
CA	CALAVERAS CO	31,998	0.8	.	.	0.124	0.105	35	.
CA	COLUSA CO	16,275	.	.	.	0.096	0.078	75	.
CA	CONTRA COSTA CO	803,732	3.1	0.01	0.0163	0.130	0.088	64	0.014
CA	DEL NORTE CO	23,460	.	.	.	.	.	33	.
CA	EL DORADO CO	125,995	4.2	.	0.0099	0.144	0.115	55	.
CA	FRESNO CO	667,490	6.9	0.00	0.0199	0.167	0.122	126	.
CA	GLENN CO	24,798	.	.	.	0.095	0.074	73	.
CA	HUMBOLDT CO	119,118	.	.	.	.	.	41	.
CA	IMPERIAL CO	109,303	13.3	0.02	0.0114	0.137	0.098	231	0.017
CA	INYO CO	18,281	.	.	.	0.087	0.082	814	.
CA	KERN CO	543,477	3.4	0.00	0.0238	0.158	0.124	131	.
CA	KINGS CO	101,469	.	.	0.0142	0.136	0.104	126	.
CA	LAKE CO	50,631	.	.	.	0.070	0.055	22	.
CA	LOS ANGELES CO	8,863,164	11.5	0.05	0.0434	0.200	0.140	78	0.012
CA	MADERA CO	88,090	.	.	0.0112	0.127	0.094	.	.
CA	MARIN CO	230,096	3.2	.	0.0172	0.073	0.047	46	.
CA	MARIPOSA CO	14,302	.	.	.	0.111	0.097	40	.
CA	MENDOCINO CO	80,345	3.2	.	0.0096	0.072	0.060	41	.
CA	MERCED CO	178,403	.	.	0.0114	0.140	0.112	.	.
CA	MONO CO	9,956	2.9	.	.	0.078	.	46	.
CA	MONTEREY CO	355,660	1.9	.	0.0095	0.085	0.067	50	.
CA	NAPA CO	110,765	3.5	.	0.0124	0.101	0.069	33	.
CA	NEVADA CO	78,510	.	.	.	0.112	0.095	112	.
CA	ORANGE CO	2,410,556	6.6	.	0.0339	0.158	0.093	65	0.005
CA	PLACER CO	172,796	2.2	0.00	0.0156	0.145	0.099	57	.
CA	PLUMAS CO	19,739	.	.	.	0.081	0.069	65	.
CA	RIVERSIDE CO	1,170,413	4.6	0.05	0.0221	0.193	0.135	114	0.009
CA	SACRAMENTO CO	1,041,219	6.1	0.01	0.0205	0.154	0.113	99	0.015
CA	SAN BENITO CO	36,697	.	.	.	0.113	0.088	36	.
CA	SAN BERNARDINO CO	1,418,380	4.5	0.04	0.0356	0.241	0.183	102	0.009
CA	SAN DIEGO CO	2,498,016	4.7	0.01	0.0229	0.135	0.114	88	0.016
CA	SAN FRANCISCO CO	723,959	3.5	0.01	0.0197	0.051	0.042	49	0.006
CA	SAN JOAQUIN CO	480,628	5.3	0.00	0.0230	0.115	0.089	102	.
CA	SAN LUIS OBISPO CO	217,162	2.0	.	0.0113	0.114	0.098	67	0.030
CA	SAN MATEO CO	649,623	3.9	.	0.0176	0.065	0.047	51	.
CA	SANTA BARBARA CO	369,608	3.9	0.00	0.0212	0.116	0.086	55	0.004
CA	SANTA CLARA CO	1,497,577	6.3	0.01	0.0248	0.142	0.094	60	.
CA	SANTA CRUZ CO	229,734	0.8	.	0.0044	0.092	0.068	67	0.003
CA	SHASTA CO	147,036	.	.	.	0.140	0.105	54	.
CA	SIERRA CO	3,318	.	.	.	.	.	55	.
CA	SISKIYOU CO	43,531	.	.	.	0.077	0.066	63	.
CA	SOLANO CO	340,421	4.9	.	0.0135	0.129	0.096	49	0.005
CA	SONOMA CO	388,222	3.0	.	0.0146	0.100	0.086	40	.
CA	STANISLAUS CO	370,522	5.4	0.00	0.0181	0.145	0.107	110	.
CA	SUTTER CO	64,415	3.9	.	0.0129	0.104	0.088	55	.
CA	TEHAMA CO	49,625	.	.	.	0.120	0.098	.	.
CA	TRINITY CO	13,063	.	.	.	.	.	39	.
CA	TULARE CO	311,921	3.6	.	0.0166	0.144	0.109	136	.
CA	TUOLUMNE CO	48,456	5.4	.	.	0.116	0.100	.	.

Table A-12. Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> 24-hr (ppm)
CA	VENTURA CO	669,016	2.9	0.00	0.0189	0.144	0.113	52	0.011
CA	YOLO CO	141,092	1.1	.	0.0107	0.111	0.087	79	.
CO	ADAMS CO	265,038	3.5	0.11	0.0229	0.104	0.083	107	0.013
CO	ALAMOSA CO	13,617	.	.	.	.	.	90	.
CO	ARAPAHOE CO	391,511	.	.	.	0.113	0.084	.	.
CO	ARCHULETA CO	5,345	.	.	.	.	.	71	.
CO	BOULDER CO	225,339	4.8	.	.	0.111	0.089	47	.
CO	DELTA CO	20,980	.	.	.	.	.	68	.
CO	DENVER CO	467,610	5.2	0.03	0.0353	0.107	0.085	81	0.023
CO	DOUGLAS CO	60,391	.	.	.	0.112	0.081	48	.
CO	EL PASO CO	397,014	3.8	0.01	0.0204	0.074	0.062	72	0.011
CO	FREMONT CO	32,273	.	.	.	.	.	41	.
CO	GARFIELD CO	29,974	.	.	.	.	.	67	.
CO	GUNNISON CO	10,273	.	.	.	.	.	149	.
CO	JEFFERSON CO	438,430	3.6	.	0.0101	0.118	0.095	50	.
CO	LAKE CO	6,007	.	0.03	.	.	.	.	.
CO	LA PLATA CO	32,284	.	.	.	.	.	77	.
CO	LARIMER CO	186,136	4.1	.	.	0.092	0.080	33	.
CO	MESA CO	93,145	5.3	.	.	.	.	51	.
CO	MONTEZUMA CO	18,672	.	.	.	0.074	0.068	.	.
CO	MONTROSE CO	24,423	.	.	.	.	.	79	.
CO	PITKIN CO	12,661	.	.	.	.	.	72	.
CO	PROWERS CO	13,347	.	.	.	.	.	100	.
CO	PUEBLO CO	123,051	.	.	.	.	.	52	.
CO	ROUTT CO	14,088	.	.	.	.	.	87	.
CO	SAN MIGUEL CO	3,653	.	.	.	.	.	72	.
CO	SUMMIT CO	12,881	.	.	.	.	.	77	.
CO	TELLER CO	12,468	.	.	.	.	.	124	.
CO	WELD CO	131,821	4.4	.	.	0.102	0.075	40	.
CT	FAIRFIELD CO	827,645	3.8	.	0.0183	0.134	0.097	50	0.025
CT	HARTFORD CO	851,783	7.1	.	0.0198	0.110	0.082	66	0.019
CT	LITCHFIELD CO	174,092	.	.	.	0.118	0.097	44	.
CT	MIDDLESEX CO	143,196	.	.	.	0.118	0.089	.	.
CT	NEW HAVEN CO	804,219	2.7	0.02	0.0269	0.130	0.097	71	0.031
CT	NEW LONDON CO	254,957	.	.	.	0.116	0.083	42	0.018
CT	TOLLAND CO	128,699	.	.	.	0.132	0.098	.	0.016
CT	WINDHAM CO	102,525	.	.	.	.	.	36	.
DE	KENT CO	110,993	.	.	.	0.131	0.102	.	.
DE	NEW CASTLE CO	441,946	3.1	.	0.0163	0.126	0.098	76	0.044
DE	SUSSEX CO	113,229	.	.	.	0.123	0.102	.	.
DC	WASHINGTON	606,900	4.6	0.02	0.0265	0.116	0.102	57	0.020
FL	ALACHUA CO	181,596	.	.	.	0.105	0.093	40	.
FL	BAY CO	126,994	.	.	.	.	.	53	.
FL	BREVARD CO	398,978	.	.	.	0.098	0.085	44	.
FL	BROWARD CO	1,255,488	3.5	0.03	0.0095	0.105	0.079	53	0.017
FL	COLLIER CO	152,099	.	.	.	.	.	42	.
FL	DADE CO	1,937,094	3.4	.	0.0151	0.112	0.087	62	0.004
FL	DUVAL CO	672,971	3.1	0.02	0.0150	0.103	0.101	65	0.037
FL	ESCAMBIA CO	262,798	.	.	.	0.128	0.102	51	0.024
FL	GULF CO	11,504	.	.	.	.	.	66	.
FL	HAMILTON CO	10,930	.	.	.	.	.	41	0.021
FL	HILLSBOROUGH CO	834,054	4.1	0.51	0.0111	0.131	0.097	105	0.036
FL	LAKE CO	152,104	.	.	.	.	.	63	.
FL	LEE CO	335,113	.	.	.	0.109	0.092	37	.

**Table A-12.** Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> 24-hr (ppm)
FL	LEON CO	192,493	.	.	.	0.090	0.079	63	.
FL	MANATEE CO	211,707	.	.	.	0.115	0.089	38	0.019
FL	MARION CO	194,833	.	.	.	0.097	0.083	.	.
FL	NASSAU CO	43,941	.	.	.	.	.	49	0.022
FL	ORANGE CO	677,491	3.5	.	0.0110	0.117	0.096	55	0.007
FL	OSCEOLA CO	107,728	.	.	.	0.123	0.091	.	.
FL	PALM BEACH CO	863,518	3.0	0.00	0.0120	0.105	0.081	52	0.004
FL	PASCO CO	281,131	.	.	.	0.103	0.091	.	.
FL	PINELLAS CO	851,659	3.0	0.01	0.0115	0.108	0.091	47	0.048
FL	POLK CO	405,382	.	.	.	0.106	0.088	91	0.027
FL	PUTNAM CO	65,070	.	.	.	.	.	41	0.012
FL	ST LUCIE CO	150,171	.	.	.	0.095	0.079	35	.
FL	SARASOTA CO	277,776	5.6	.	.	0.122	0.091	82	0.019
FL	SEMINOLE CO	287,529	.	.	.	0.101	0.089	47	.
FL	VOLUSIA CO	370,712	.	.	.	0.096	0.082	48	.
GA	BALDWIN CO	39,530	.	.	.	.	.	.	0.015
GA	BARTOW CO	55,911	.	.	.	.	.	.	0.014
GA	BIBB CO	149,967	.	.	.	0.137	0.106	59	0.019
GA	CHATHAM CO	216,935	.	.	.	0.097	0.075	79	0.027
GA	CHATTOOGA CO	22,242	.	.	.	.	.	62	.
GA	DAWSON CO	9,429	.	.	.	0.109	0.096	.	.
GA	DE KALB CO	545,837	4.1	0.01	.	0.142	0.112	58	.
GA	DOUGHERTY CO	96,311	.	.	.	.	.	66	0.006
GA	DOUGLAS CO	71,120	.	.	.	0.133	0.110	56	.
GA	FANNIN CO	15,992	.	.	.	0.100	0.081	.	0.052
GA	FAYETTE CO	62,415	.	.	.	0.141	0.111	.	.
GA	FLOYD CO	81,251	.	.	.	.	.	49	0.016
GA	FULTON CO	648,951	3.1	.	0.0241	0.157	0.126	71	0.019
GA	GLYNN CO	62,496	.	.	.	0.109	0.082	119	.
GA	GWINNETT CO	352,910	.	.	.	0.139	0.111	.	.
GA	MUSCOGEE CO	179,278	.	0.58	.	0.113	0.091	50	.
GA	PAULDING CO	41,611	.	.	0.0060	0.138	0.104	.	.
GA	RICHMOND CO	189,719	.	.	.	0.119	0.099	60	0.011
GA	ROCKDALE CO	54,091	.	.	0.0077	0.134	0.113	.	.
GA	SPALDING CO	54,457	.	.	.	.	.	54	.
GA	SUMTER CO	30,228	.	.	.	0.095	0.081	.	.
GA	WALKER CO	58,340	.	.	.	.	.	54	.
GA	WASHINGTON CO	19,112	.	.	.	.	.	83	.
HI	HONOLULU CO	836,231	2.3	.	0.0044	0.056	0.049	39	0.009
HI	KAUAI CO	51,177	.	.	.	.	.	30	.
HI	MAUI CO	100,374	.	.	.	.	.	128	.
ID	ADA CO	205,775	3.9	.	0.0202	.	.	62	.
ID	BANNOCK CO	66,026	.	.	.	.	.	105	0.034
ID	BLAINE CO	13,552	.	.	.	.	.	66	.
ID	BONNER CO	26,622	.	.	.	.	.	67	.
ID	BONNEVILLE CO	72,207	.	.	.	.	.	98	.
ID	BUTTE CO	2,918	.	.	.	0.070	0.065	.	.
ID	CANYON CO	90,076	.	.	.	.	.	69	.
ID	CARIBOU CO	6,963	.	.	.	.	.	101	0.018
ID	KOOTENAI CO	69,795	.	.	.	.	.	85	.
ID	LEMHI CO	6,899	.	.	.	.	.	102	.
ID	LEWIS CO	3,516	.	.	.	.	.	61	.
ID	MADISON CO	23,674	.	.	.	.	.	94	.
ID	MINIDOKA CO	19,361	.	.	.	.	.	78	.

Table A-12. Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> 24-hr (ppm)
ID	NEZ PERCE CO	33,754	4.8	.	.	.	.	76	.
ID	SHOSHONE CO	13,931	.	0.15	.	.	.	120	.
ID	TWIN FALLS CO	53,580	.	.	.	.	.	46	.
IL	ADAMS CO	66,090	.	.	.	0.095	0.073	46	0.022
IL	CHAMPAIGN CO	173,025	.	.	.	0.105	0.083	52	0.019
IL	COOK CO	5,105,067	5.0	0.10	0.0322	0.109	0.086	102	0.051
IL	DU PAGE CO	781,666	.	0.03	.	0.097	0.068	60	0.022
IL	EFFINGHAM CO	31,704	.	.	.	0.093	0.083	.	.
IL	HAMILTON CO	8,499	.	.	.	0.089	0.075	.	.
IL	JACKSON CO	61,067	.	.	.	.	.	46	.
IL	JERSEY CO	20,539	.	.	.	0.122	0.091	.	.
IL	KANE CO	317,471	.	.	.	0.092	0.074	69	.
IL	LAKE CO	516,418	.	.	.	0.107	0.088	.	.
IL	LA SALLE CO	106,913	.	.	.	.	.	134	.
IL	MC HENRY CO	183,241	.	.	.	0.092	0.078	.	.
IL	MACON CO	117,206	.	0.02	.	0.094	0.078	69	0.020
IL	MACOUPIN CO	47,679	.	0.02	.	0.109	0.079	45	0.011
IL	MADISON CO	249,238	2.9	2.59	.	0.118	0.088	116	0.087
IL	PEORIA CO	182,827	5.8	0.02	.	0.086	0.076	53	0.045
IL	RANDOLPH CO	34,583	.	.	.	0.099	0.082	.	0.048
IL	ROCK ISLAND CO	148,723	.	0.01	.	0.086	0.072	58	0.008
IL	ST CLAIR CO	262,852	.	0.10	0.0182	0.101	0.078	84	0.069
IL	SANGAMON CO	178,386	1.9	.	.	0.093	0.078	65	0.061
IL	TAZEWELL CO	123,692	.	.	.	.	.	55	0.037
IL	WABASH CO	13,111	.	.	.	.	.	.	0.033
IL	WILL CO	357,313	0.8	0.01	0.0087	0.095	0.081	49	0.024
IL	WINNEBAGO CO	252,913	3.6	0.04	.	0.085	0.073	53	.
IN	ALLEN CO	300,836	3.0	.	.	0.105	0.089	58	.
IN	CLARK CO	87,777	.	.	.	0.140	0.104	54	.
IN	DAVISS CO	27,533	.	.	.	.	.	.	0.041
IN	DEARBORN CO	38,835	.	.	.	.	.	.	0.036
IN	DE KALB CO	35,324	.	.	.	.	.	66	.
IN	DELAWARE CO	119,659	.	0.90	.	.	.	.	.
IN	DUBOIS CO	36,616	.	.	.	.	.	51	.
IN	ELKHART CO	156,198	.	.	.	0.106	0.082	.	.
IN	FLOYD CO	64,404	.	.	.	0.131	0.100	.	0.033
IN	FOUNTAIN CO	17,808	.	.	.	.	.	.	0.043
IN	GIBSON CO	31,913	.	.	.	.	.	.	0.056
IN	HAMILTON CO	108,936	.	.	.	0.125	0.100	.	.
IN	HANCOCK CO	45,527	.	.	.	0.119	0.094	.	.
IN	HENDRICKS CO	75,717	3.8	.	.	.	.	.	0.014
IN	JASPER CO	24,960	.	.	.	.	.	44	0.015
IN	JEFFERSON CO	29,797	.	.	.	.	.	.	0.027
IN	JOHNSON CO	88,109	.	.	.	0.101	0.090	.	.
IN	LAKE CO	475,594	4.5	0.12	0.0189	0.113	0.087	136	0.055
IN	LA PORTE CO	107,066	.	0.02	.	0.121	0.093	.	0.016
IN	MADISON CO	130,669	.	.	.	0.117	0.097	39	.
IN	MARION CO	797,159	2.8	0.08	0.0189	0.115	0.095	58	0.024
IN	MORGAN CO	55,920	.	.	.	0.102	0.090	.	.
IN	PERRY CO	19,107	.	.	.	0.114	.	84	0.029
IN	PIKE CO	12,509	.	.	.	.	.	.	0.029
IN	PORTER CO	128,932	.	.	.	0.121	0.090	66	0.026
IN	POSEY CO	25,968	.	.	.	0.107	0.092	.	.
IN	ST JOSEPH CO	247,052	.	.	0.0122	0.117	0.095	46	.

**Table A-12.** Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> 24-hr (ppm)
IN	SPENCER CO	19,490	.	.	.	.	.	.	0.023
IN	SULLIVAN CO	18,993	.	.	.	.	.	.	0.026
IN	VANDEBURGH CO	165,058	4.0	.	.	0.117	0.094	53	0.049
IN	VIGO CO	106,107	.	0.02	.	0.099	0.084	52	0.032
IN	WARRICK CO	44,920	.	.	.	0.116	0.096	.	0.071
IN	WAYNE CO	71,951	.	.	.	.	.	.	0.037
IA	BLACK HAWK CO	123,798	.	.	.	.	.	54	.
IA	CERRO GORDO CO	46,733	.	.	.	.	.	120	0.087
IA	CLINTON CO	51,040	.	.	.	.	.	72	0.024
IA	DELAWARE CO	18,035	.	.	.	.	.	52	.
IA	HARRISON CO	14,730	.	.	.	0.093	0.079	.	.
IA	LEE CO	38,687	.	.	.	.	.	.	0.047
IA	LINN CO	168,767	2.5	.	.	0.078	0.066	76	0.020
IA	MUSCATINE CO	39,907	.	.	.	.	.	60	0.091
IA	PALO ALTO CO	10,669	.	.	.	0.081	0.068	.	.
IA	POLK CO	327,140	10.4	.	.	0.065	0.056	68	.
IA	POTTAWATTAMIE CO	82,628	.	0.01	.	.	.	.	.
IA	SCOTT CO	150,979	.	.	.	0.097	0.077	121	0.018
IA	STORY CO	74,252	.	.	.	0.083	0.070	.	.
IA	VAN BUREN CO	7,676	.	.	.	0.084	0.071	.	0.009
IA	WARREN CO	36,033	.	.	.	0.083	0.070	.	.
IA	WOODBURY CO	98,276	.	.	.	.	.	67	.
KS	FORD CO	27,463	.	.	.	.	.	52	.
KS	LINN CO	8,254	1.0	.	.	0.104	0.080	.	0.002
KS	SEDGWICK CO	403,662	5.5	0.01	.	0.100	0.083	75	.
KS	SHAWNEE CO	160,976	.	.	.	.	.	67	.
KS	SHERMAN CO	6,926	.	.	.	.	.	66	.
KS	WYANDOTTE CO	161,993	4.0	.	.	0.113	0.087	69	0.015
KY	BELL CO	31,506	3.9	.	.	0.102	0.087	51	.
KY	BOONE CO	57,589	.	.	.	0.110	0.084	.	.
KY	BOYD CO	51,150	7.2	.	.	0.090	.	94	0.038
KY	BULLITT CO	47,567	.	.	0.0123	0.108	0.096	46	.
KY	CAMPBELL CO	83,866	.	.	0.0180	0.113	0.089	.	0.040
KY	CARTER CO	24,340	.	.	.	0.118	0.096	.	.
KY	CHRISTIAN CO	68,941	.	.	.	0.111	0.086	.	.
KY	DAVIESS CO	87,189	1.0	.	0.0125	0.110	0.086	57	0.023
KY	EDMONSON CO	10,357	.	.	.	0.112	0.097	.	.
KY	FAYETTE CO	225,366	2.9	.	0.0109	0.106	0.089	64	0.023
KY	FLOYD CO	43,586	.	.	.	.	.	39	.
KY	GRAVES CO	33,550	.	.	.	0.105	0.086	.	.
KY	GREENUP CO	36,742	.	.	.	0.133	0.099	.	0.030
KY	HANCOCK CO	7,864	.	.	.	0.113	0.095	.	0.028
KY	HARDIN CO	89,240	.	.	.	0.100	0.083	42	.
KY	HARLAN CO	36,574	.	.	.	.	.	41	.
KY	HENDERSON CO	43,044	2.1	.	0.0176	0.111	0.084	67	0.031
KY	JEFFERSON CO	664,937	5.5	.	0.0233	0.121	0.097	59	0.045
KY	JESSAMINE CO	30,508	.	.	.	0.105	0.089	.	.
KY	KENTON CO	142,031	2.6	.	0.0179	0.121	0.091	54	.
KY	LAWRENCE CO	13,998	.	.	.	0.088	.	49	.
KY	LIVINGSTON CO	9,062	.	.	.	0.131	0.093	56	0.017
KY	MC CRACKEN CO	62,879	2.4	.	0.0123	0.109	0.090	55	0.019
KY	MC LEAN CO	9,628	.	.	.	0.110	0.085	.	.
KY	MADISON CO	57,508	.	.	.	.	.	51	.
KY	MARSHALL CO	27,205	.	.	.	.	.	80	.

Table A-12. Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> 24-hr (ppm)
KY	OLDHAM CO	33,263	.	.	.	0.120	0.101	.	.
KY	PERRY CO	30,283	.	.	.	0.091	0.073	50	.
KY	PIKE CO	72,583	.	.	.	0.101	0.085	47	.
KY	PULASKI CO	49,489	.	.	.	0.102	0.084	37	.
KY	SCOTT CO	23,867	.	.	.	0.106	0.088	.	.
KY	SIMPSON CO	15,145	.	.	0.0108	0.113	0.092	.	.
KY	TRIGG CO	10,361	.	.	.	0.100	0.083	.	.
KY	WARREN CO	76,673	.	.	.	.	.	44	.
KY	WHITLEY CO	33,326	.	.	.	.	.	45	.
LA	ASCENSION PAR	58,214	.	.	.	0.123	0.091	.	.
LA	BEAUREGARD PAR	30,083	.	.	0.0068	0.106	0.082	.	.
LA	BOSSIER PAR	86,088	.	.	.	0.111	0.090	.	0.010
LA	CADDO PAR	248,253	.	.	.	0.107	0.090	57	.
LA	CALCASIEU PAR	168,134	.	.	0.0052	0.123	0.090	.	0.012
LA	EAST BATON ROUGE PAR	380,105	3.9	0.04	0.0187	0.131	0.107	64	0.017
LA	GRANT PAR	17,526	.	.	.	0.102	0.084	.	.
LA	IBERVILLE PAR	31,049	.	.	0.0103	0.120	0.091	.	.
LA	JEFFERSON PAR	448,306	.	.	0.0112	0.122	0.091	.	.
LA	LAFAYETTE PAR	164,762	.	.	.	0.100	0.088	.	.
LA	LAFOURCHE PAR	85,860	.	.	.	0.110	0.090	.	.
LA	LIVINGSTON PAR	70,526	.	.	0.0055	0.117	0.089	.	.
LA	ORLEANS PAR	496,938	3.3	0.08	0.0204	0.092	0.076	61	.
LA	OUACHITA PAR	142,191	.	.	.	0.090	0.078	.	0.012
LA	POINTE COUPEE PAR	22,540	.	.	0.0073	0.103	0.075	.	.
LA	ST BERNARD PAR	66,631	.	.	.	0.108	0.086	.	0.026
LA	ST CHARLES PAR	42,437	.	.	.	0.105	0.086	56	.
LA	ST JAMES PAR	20,879	.	.	0.0106	0.101	0.081	.	.
LA	ST JOHN THE BAPTIST PAR	39,996	.	0.11	.	0.118	0.087	.	.
LA	ST MARY PAR	58,086	.	.	.	0.105	0.091	.	.
LA	WEST BATON ROUGE PAR	19,419	.	0.05	0.0152	0.128	0.083	64	0.036
ME	ANDROSCOGGIN CO	105,259	.	.	.	.	.	36	0.019
ME	AROOSTOOK CO	86,936	.	.	.	.	.	99	0.036
ME	CUMBERLAND CO	243,135	.	.	.	0.120	0.089	68	0.025
ME	FRANKLIN CO	29,008	.	.	.	.	.	31	.
ME	HANCOCK CO	46,948	.	.	.	0.125	0.094	.	.
ME	KENNEBEC CO	115,904	.	.	.	0.102	0.077	66	.
ME	KNOX CO	36,310	.	.	.	0.107	0.077	46	.
ME	OXFORD CO	52,602	.	.	.	0.072	0.060	54	0.017
ME	PENOBSCOT CO	146,601	.	.	.	0.094	0.077	43	.
ME	PISCATAQUIS CO	18,653	.	.	.	0.068	0.061	.	.
ME	SAGadahoc CO	33,535	.	.	.	0.124	0.091	.	.
ME	YORK CO	164,587	.	.	0.0102	0.120	0.089	.	.
MD	ALLEGANY CO	74,946	.	.	.	.	.	.	0.012
MD	ANNE ARUNDEL CO	427,239	.	.	.	0.136	0.111	52	0.021
MD	BALTIMORE CO	692,134	.	.	0.0200	0.116	0.094	48	.
MD	CALVERT CO	51,372	.	.	.	0.112	0.092	.	.
MD	CARROLL CO	123,372	.	.	.	0.119	0.095	.	.
MD	CECIL CO	71,347	.	.	.	0.124	0.101	33	.
MD	CHARLES CO	101,154	.	.	.	0.123	0.105	.	.
MD	FREDERICK CO	150,208	.	.	.	0.108	0.095	.	.
MD	GARRETT CO	28,138	.	.	.	.	.	44	.
MD	HARFORD CO	182,132	.	.	.	0.132	0.099	.	.
MD	KENT CO	17,842	.	.	.	0.117	0.098	.	.
MD	MONTGOMERY CO	757,027	.	.	.	0.122	0.097	.	.

Table A-12. Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> 24-hr (ppm)
MD	PRINCE GEORGES CO	729,268	4.8	.	.	0.128	0.104	53	.
MD	WICOMICO CO	74,339	.	.	.	.	.	35	.
MD	BALTIMORE	736,014	5.0	0.01	0.0258	0.116	0.091	65	0.020
MA	BARNSTABLE CO	186,605	.	.	0.0040	0.103	0.084	.	.
MA	BERKSHIRE CO	139,352	.	.	.	0.078	.	.	.
MA	BRISTOL CO	506,325	.	.	0.0077	0.107	0.088	44	0.024
MA	ESSEX CO	670,080	.	.	0.0145	0.113	0.100	41	0.031
MA	HAMPDEN CO	456,310	4.6	.	0.0204	0.115	0.093	62	0.026
MA	HAMPSHIRE CO	146,568	.	.	0.0058	0.117	0.093	35	0.016
MA	MIDDLESEX CO	1,398,468	3.4	.	.	0.114	0.098	40	0.024
MA	NORFOLK CO	616,087	.	.	.	.	.	34	.
MA	SUFFOLK CO	663,906	3.2	0.03	0.0307	0.096	0.087	71	0.036
MA	WORCESTER CO	709,705	3.5	.	0.0187	0.124	0.097	50	0.017
MI	ALLEGAN CO	90,509	.	.	.	0.124	0.097	.	.
MI	BENZIE CO	12,200	.	.	.	0.107	0.090	.	.
MI	BERRIEN CO	161,378	.	.	.	0.136	0.093	.	.
MI	CALHOUN CO	135,982	.	.	.	.	.	66	.
MI	CASS CO	49,477	.	.	.	0.110	0.091	.	.
MI	CLINTON CO	57,883	.	.	.	0.097	0.078	.	.
MI	DELTA CO	37,780	.	.	.	.	.	.	0.007
MI	GENESEE CO	430,459	.	0.01	.	0.114	0.089	39	0.014
MI	HURON CO	34,951	.	.	.	0.113	0.087	.	.
MI	INGHAM CO	281,912	.	.	.	0.102	0.081	.	.
MI	KALAMAZOO CO	223,411	.	.	.	0.106	0.087	.	.
MI	KENT CO	500,631	2.9	0.01	.	0.106	0.087	55	0.008
MI	LENAWEE CO	91,476	.	.	.	0.097	0.086	.	.
MI	MACOMB CO	717,400	2.2	.	.	0.126	0.098	.	0.017
MI	MASON CO	25,537	.	.	.	0.108	0.087	.	.
MI	MISSAUKEE CO	12,147	.	0.00	.	0.097	0.079	.	.
MI	MUSKEGON CO	158,983	.	.	.	0.115	0.092	.	.
MI	OAKLAND CO	1,083,592	2.2	.	.	0.102	0.089	.	.
MI	OTTAWA CO	187,768	.	.	.	0.101	0.085	40	.
MI	ST CLAIR CO	145,607	.	.	.	0.116	0.091	.	0.073
MI	WASHTENAW CO	282,937	.	.	.	0.099	0.084	.	.
MI	WAYNE CO	2,111,687	3.5	0.08	0.0230	0.117	0.093	114	0.044
MN	ANOKA CO	243,641	2.8	.	.	0.093	0.072	.	.
MN	CARLTON CO	29,259	.	.	.	.	.	37	.
MN	DAKOTA CO	275,227	1.1	0.14	0.0129	0.087	0.071	.	0.013
MN	HENNEPIN CO	1,032,431	3.7	0.02	0.0256	.	.	73	0.024
MN	KOOCHICHING CO	16,299	.	.	.	.	.	.	0.059
MN	LAKE CO	10,415	.	.	.	0.077	0.068	.	.
MN	OLMSTED CO	106,470	.	.	.	.	.	36	.
MN	RAMSEY CO	485,765	7.0	0.02	0.0180	.	.	64	0.009
MN	ST LOUIS CO	198,213	3.7	.	.	0.075	0.067	81	.
MN	SHERBURNE CO	41,945	.	.	.	.	.	.	0.019
MN	STEARNS CO	118,791	3.6	.	.	.	.	.	.
MN	WASHINGTON CO	145,896	.	.	.	0.097	0.076	49	0.013
MS	ADAMS CO	35,356	.	.	.	0.095	0.084	.	.
MS	COAHOMA CO	31,665	.	.	.	.	.	41	.
MS	DE SOTO CO	67,910	.	.	0.0106	0.109	0.089	.	.
MS	HANCOCK CO	31,760	.	.	0.0039	0.108	0.089	.	.
MS	HARRISON CO	165,365	.	.	.	.	.	.	0.022
MS	HINDS CO	254,441	3.7	.	.	0.104	0.082	76	0.008
MS	JACKSON CO	115,243	.	.	.	0.118	0.097	.	0.015

**Table A-12.** Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> 24-hr (ppm)
MS	JONES CO	62,031	.	.	.	.	.	45	.
MS	LAUDERDALE CO	75,555	.	.	.	0.091	0.078	.	.
MS	LEE CO	65,581	.	.	.	0.107	0.088	32	.
MS	MADISON CO	53,794	.	.	.	0.106	0.086	.	.
MS	PANOLA CO	29,996	.	.	.	0.119	0.089	.	0.005
MS	WARREN CO	47,880	.	.	.	0.096	0.082	47	.
MS	WASHINGTON CO	67,935	.	.	.	.	.	56	.
MO	BUCHANAN CO	83,083	.	.	.	.	.	124	0.121
MO	CEDAR CO	12,093	.	.	.	0.096	0.087	.	.
MO	CLAY CO	153,411	4.6	.	0.0130	0.133	0.095	.	0.008
MO	GREENE CO	207,949	4.0	.	0.0122	0.094	0.071	43	0.042
MO	HOLT CO	6,034	.	0.62	.	.	.	.	.
MO	IRON CO	10,726	.	1.14	.	.	.	.	0.084
MO	JACKSON CO	633,232	3.9	0.01	.	0.099	0.073	68	0.010
MO	JEFFERSON CO	171,380	.	11.59	.	0.111	0.091	48	0.049
MO	MONROE CO	9,104	.	.	.	0.091	0.079	36	0.014
MO	PLATTE CO	57,867	.	.	0.0132	0.123	0.090	.	0.005
MO	ST CHARLES CO	212,907	.	.	0.0115	0.135	0.097	.	0.021
MO	STE GENEVIEVE CO	16,037	.	.	.	0.103	0.090	.	.
MO	ST LOUIS CO	993,529	4.0	0.04	0.0225	0.122	0.092	62	0.027
MO	ST LOUIS	396,685	6.0	.	0.0258	0.103	0.079	71	0.038
MT	BIG HORN CO	11,337	.	.	.	.	.	144	.
MT	BROADWATER CO	3,318	.	.	.	.	.	66	.
MT	CASCADE CO	77,691	4.5	.	.	.	.	.	0.010
MT	FLATHEAD CO	59,218	5.0	.	.	0.062	.	118	.
MT	GALLATIN CO	50,463	.	.	.	.	.	73	.
MT	GLACIER CO	12,121	.	.	.	.	.	78	.
MT	JEFFERSON CO	7,939	.	.	.	.	.	75	0.030
MT	LAKE CO	21,041	.	.	.	.	.	108	.
MT	LEWIS AND CLARK CO	47,495	.	0.89	.	.	.	99	0.032
MT	LINCOLN CO	17,481	.	.	.	.	.	107	.
MT	MADISON CO	5,989	.	.	.	.	.	34	.
MT	MISSOULA CO	78,687	4.7	.	.	.	.	73	.
MT	PARK CO	14,562	.	.	.	.	.	21	.
MT	PHILLIPS CO	5,163	.	.	.	.	.	53	.
MT	RAVALLI CO	25,010	.	.	.	.	.	76	.
MT	ROSEBUD CO	10,505	.	.	.	.	.	153	0.012
MT	SANDERS CO	8,669	.	.	.	.	.	68	.
MT	SILVER BOW CO	33,941	4.9	.	.	.	.	97	.
MT	YELLOWSTONE CO	113,419	5.4	.	.	.	.	.	0.032
NE	CASS CO	21,318	.	.	.	.	.	106	.
NE	DAWSON CO	19,940	.	.	.	.	.	87	.
NE	DOUGLAS CO	416,444	7.7	0.25	.	0.090	0.070	85	0.032
NE	LANCASTER CO	213,641	6.0	.	.	0.068	0.058	.	.
NV	CLARK CO	741,459	10.1	.	.	0.108	0.092	188	.
NV	DOUGLAS CO	27,637	1.8	.	.	0.075	0.069	.	.
NV	ELKO CO	33,530	.	.	.	.	.	58	.
NV	LANDER CO	6,266	.	.	.	.	.	59	.
NV	WASHOE CO	254,667	6.6	.	.	0.093	0.075	139	.
NV	WHITE PINE CO	9,264	.	.	.	0.083	0.070	.	.
NV	CARSON CITY	40,443	4.5	.	.	0.080	0.067	.	.
NH	BELKNAP CO	49,216	.	.	.	0.072	0.064	.	.
NH	CARROLL CO	35,410	.	.	.	0.078	0.068	.	.
NH	CHESHIRE CO	70,121	.	.	.	0.085	0.073	.	0.023

**Table A-12.** Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> 24-hr (ppm)
NH	COOS CO	34,828	.	.	.	.	.	.	0.046
NH	GRAFTON CO	74,929	.	.	.	0.086	0.076	.	.
NH	HILLSBOROUGH CO	336,073	5.3	.	0.0148	0.100	0.084	.	0.027
NH	MERRIMACK CO	120,005	.	.	.	0.088	0.074	.	0.043
NH	ROCKINGHAM CO	245,845	.	.	0.0124	0.118	0.085	.	0.016
NH	STRAFFORD CO	104,233	.	.	.	0.092	0.079	.	.
NH	SULLIVAN CO	38,592	.	.	.	0.091	0.067	.	0.018
NJ	ATLANTIC CO	224,327	.	.	.	0.118	0.091	.	0.010
NJ	BERGEN CO	825,380	3.7	.	.	0.080	.	.	0.018
NJ	BURLINGTON CO	395,066	3.6	.	.	.	.	.	0.023
NJ	CAMDEN CO	502,824	3.0	0.01	0.0219	0.118	0.097	52	0.023
NJ	CUMBERLAND CO	138,053	.	.	.	0.117	0.098	.	0.012
NJ	ESSEX CO	778,206	2.6	.	0.0328	0.112	0.087	71	0.025
NJ	GLOUCESTER CO	230,082	.	.	.	0.120	0.098	46	0.015
NJ	HUDSON CO	553,099	5.6	.	0.0269	0.118	0.089	63	0.024
NJ	HUNTERDON CO	107,776	.	.	.	0.118	0.096	.	.
NJ	MERCER CO	325,824	.	.	0.0153	0.113	0.095	.	.
NJ	MIDDLESEX CO	671,780	3.0	0.08	0.0191	0.117	0.099	.	0.018
NJ	MONMOUTH CO	553,124	2.8	.	.	0.129	0.093	.	.
NJ	MORRIS CO	421,353	3.3	.	0.0112	0.119	0.097	.	0.020
NJ	OCEAN CO	433,203	3.2	.	.	0.135	0.104	.	.
NJ	PASSAIC CO	453,060	.	.	.	0.102	0.089	59	.
NJ	UNION CO	493,819	5.1	.	0.0419	.	.	58	0.021
NM	BERNALILLO CO	480,577	5.9	.	0.0157	0.093	0.074	88	.
NM	CHAVES CO	57,849	.	.	.	.	.	48	.
NM	DONA ANA CO	135,510	4.2	0.04	0.0101	0.124	0.082	158	0.019
NM	EDDY CO	48,605	.	.	0.0058	0.084	0.075	.	0.005
NM	GRANT CO	27,676	.	.	.	.	.	37	0.022
NM	HIDALGO CO	5,958	.	.	.	.	.	24	0.044
NM	LEA CO	55,765	.	.	.	.	.	41	.
NM	LUNA CO	18,110	.	.	.	.	.	36	.
NM	OTERO CO	51,928	.	.	.	.	.	41	.
NM	SANDOVAL CO	63,319	1.0	.	0.0093	0.090	0.072	39	.
NM	SAN JUAN CO	91,605	3.8	.	0.0099	0.079	0.071	28	0.074
NM	SANTA FE CO	98,928	2.0	.	.	.	.	29	.
NM	TAOS CO	23,118	.	.	.	.	.	75	.
NM	VALENCIA CO	45,235	.	.	.	0.082	0.069	.	.
NY	ALBANY CO	292,594	1.2	0.03	0.0145	0.100	0.079	58	0.016
NY	BRONX CO	1,203,789	3.2	.	0.0359	0.095	0.078	51	0.037
NY	BROOME CO	212,160	.	.	.	.	.	51	.
NY	CHAUTAUQUA CO	141,895	.	.	.	0.111	0.095	62	0.032
NY	CHEMUNG CO	95,195	.	.	.	0.094	0.082	.	0.011
NY	COLUMBIA CO	62,982	.	.	.	.	.	46	.
NY	DUTCHESS CO	259,462	.	.	.	0.108	0.089	.	.
NY	ERIE CO	968,532	3.1	0.04	0.0208	0.110	0.094	50	0.049
NY	ESSEX CO	37,152	.	.	.	0.098	0.079	43	0.006
NY	GREENE CO	44,739	.	.	.	.	.	56	.
NY	HAMILTON CO	5,279	.	.	.	0.089	0.080	.	0.005
NY	HERKIMER CO	65,797	.	.	.	0.085	0.070	38	0.005
NY	JEFFERSON CO	110,943	.	.	.	0.103	0.088	.	.
NY	KINGS CO	2,300,664	4.1	0.14	.	.	.	54	0.029
NY	MADISON CO	69,120	.	.	.	0.094	0.082	.	0.011
NY	MONROE CO	713,968	3.1	.	.	0.088	0.076	50	0.054
NY	NASSAU CO	1,287,348	4.0	.	0.0219	.	.	46	0.022

Table A-12. Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> 24-hr (ppm)
NY	NEW YORK CO	1,487,536	5.8	0.13	0.0397	0.109	0.075	114	0.038
NY	NIAGARA CO	220,756	1.4	0.04	.	0.101	0.089	55	0.016
NY	ONEIDA CO	250,836	.	.	.	0.091	0.076	45	.
NY	ONONDAGA CO	468,973	3.0	.	.	0.092	0.082	62	0.009
NY	ORANGE CO	307,647	.	0.14	.	0.104	0.088	.	.
NY	PUTNAM CO	83,941	.	.	.	0.112	0.093	39	0.014
NY	QUEENS CO	1,951,598	2.2	.	.	0.119	0.089	.	0.033
NY	RENSELAER CO	154,429	.	.	.	.	.	48	0.009
NY	RICHMOND CO	378,977	.	0.02	.	0.129	0.090	47	0.024
NY	ROCKLAND CO	265,475	.	.	.	.	.	45	.
NY	SARATOGA CO	181,276	.	.	.	0.099	0.076	44	.
NY	SCHENECTADY CO	149,285	4.4	.	.	0.090	0.069	48	0.013
NY	SUFFOLK CO	1,321,864	.	.	.	0.143	0.095	40	0.033
NY	ULSTER CO	165,304	.	.	.	0.093	0.081	52	0.009
NY	WAYNE CO	89,123	.	.	.	0.103	0.085	.	.
NY	WESTCHESTER CO	874,866	.	.	.	0.109	0.090	.	.
NC	ALEXANDER CO	27,544	.	.	.	0.133	0.096	.	.
NC	AVERY CO	14,867	.	.	.	0.096	0.082	.	.
NC	BEAUFORT CO	42,283	.	.	.	.	.	.	0.017
NC	BUNCOMBE CO	174,821	.	.	.	0.114	0.090	55	.
NC	CABARRUS CO	98,935	.	.	.	.	.	46	.
NC	CALDWELL CO	70,709	.	.	.	0.114	0.098	.	.
NC	CAMDEN CO	5,904	.	.	.	0.092	0.079	.	.
NC	CASWELL CO	20,693	.	.	.	0.119	0.096	.	.
NC	CATAWBA CO	118,412	.	.	.	.	.	44	.
NC	CHATHAM CO	38,759	.	.	.	0.106	0.090	.	0.009
NC	CUMBERLAND CO	274,566	4.2	.	.	0.112	0.098	47	.
NC	DAVIDSON CO	126,677	.	.	.	.	.	48	.
NC	DAVIE CO	27,859	.	.	.	0.123	0.102	.	.
NC	DUPLIN CO	39,995	.	.	.	0.104	0.091	.	.
NC	DURHAM CO	181,835	5.2	.	.	0.112	0.095	47	.
NC	EDGECOMBE CO	56,558	.	.	.	0.107	0.091	43	.
NC	FORSYTH CO	265,878	5.4	.	0.0170	0.123	0.100	63	0.023
NC	FRANKLIN CO	36,414	.	.	.	0.110	0.099	.	.
NC	GASTON CO	175,093	.	.	.	.	.	41	.
NC	GRANVILLE CO	38,345	0.9	.	.	0.130	0.098	.	.
NC	GUILFORD CO	347,420	3.6	.	.	0.115	0.097	54	.
NC	HARNETT CO	67,822	.	.	.	.	.	63	.
NC	HAYWOOD CO	46,942	.	.	.	0.109	0.102	49	.
NC	HENDERSON CO	69,285	.	.	.	.	.	43	.
NC	JOHNSTON CO	81,306	.	.	.	0.111	0.092	.	.
NC	LENOIR CO	57,274	.	.	.	0.109	0.092	.	.
NC	LINCOLN CO	50,319	.	.	.	0.117	0.090	.	.
NC	MC DOWELL CO	35,681	.	.	.	.	.	48	.
NC	MARTIN CO	25,078	.	.	.	0.094	0.084	.	0.006
NC	MECKLENBURG CO	511,433	5.0	.	0.0177	0.135	0.110	73	0.011
NC	MITCHELL CO	14,433	.	.	.	.	.	52	.
NC	NEW HANOVER CO	120,284	.	.	.	0.102	0.087	41	0.026
NC	NORTHAMPTON CO	20,798	.	.	.	0.109	0.087	.	.
NC	ONSLOW CO	149,838	.	.	.	.	.	42	.
NC	ORANGE CO	93,851	3.8	.	.	.	.	.	.
NC	PASQUOTANK CO	31,298	.	.	.	.	.	40	.
NC	PERSON CO	30,180	.	.	.	0.117	0.093	.	0.016
NC	PITT CO	107,924	.	.	.	0.109	0.091	42	.

Table A-12. Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> 24-hr (ppm)
NC	ROCKINGHAM CO	86,064	.	.	.	0.112	.	.	.
NC	ROWAN CO	110,605	0.8	.	.	0.126	0.101	.	0.012
NC	SWAIN CO	11,268	.	.	.	0.090	0.078	39	0.006
NC	WAKE CO	423,380	5.4	.	.	0.124	0.106	63	.
NC	WAYNE CO	104,666	.	.	.	.	.	44	.
NC	YANCEY CO	15,419	.	.	.	0.083	.	.	.
ND	BILLINGS CO	1,108	.	.	.	0.060	.	.	0.004
ND	BURLEIGH CO	60,131	.	.	.	.	.	32	.
ND	CASS CO	102,874	.	.	.	0.068	.	.	0.005
ND	DUNN CO	4,005	.	.	.	.	.	.	0.005
ND	GRAND FORKS CO	70,683	.	.	.	.	.	81	.
ND	MC KENZIE CO	6,383	.	.	.	0.065	.	.	0.013
ND	MC LEAN CO	10,457	.	.	.	.	.	.	0.008
ND	MERCER CO	9,808	.	.	0.0047	0.069	0.059	28	0.018
ND	MORTON CO	23,700	.	.	.	.	.	.	0.116
ND	OLIVER CO	2,381	.	.	0.0031	0.067	0.058	.	0.014
ND	STARK CO	22,832	.	.	.	.	.	40	.
ND	STEELE CO	2,420	.	.	0.0026	0.068	0.059	48	0.010
ND	WILLIAMS CO	21,129	.	.	.	.	.	.	0.013
OH	ADAMS CO	25,371	.	.	.	.	.	.	0.036
OH	ALLEN CO	109,755	.	.	.	0.102	0.089	46	0.017
OH	ASHTABULA CO	99,821	.	.	.	0.116	0.096	.	0.020
OH	ATHENS CO	59,549	.	.	.	.	.	39	.
OH	BELMONT CO	71,074	.	.	.	.	.	54	.
OH	BUTLER CO	291,479	.	0.02	.	0.118	0.092	74	0.022
OH	CLARK CO	147,548	.	.	.	0.125	0.100	.	0.016
OH	CLERMONT CO	150,187	.	.	.	0.117	0.099	.	0.021
OH	CLINTON CO	35,415	.	.	.	0.118	0.103	.	.
OH	COLUMBIANA CO	108,276	.	.	0.0146	.	.	88	0.049
OH	CUYAHOGA CO	1,412,140	6.4	0.65	0.0273	0.113	0.094	117	0.037
OH	DELAWARE CO	66,929	.	.	.	0.119	0.102	.	.
OH	FRANKLIN CO	961,437	3.7	0.03	.	0.113	0.096	83	0.019
OH	FULTON CO	38,498	.	0.35	.	.	.	.	.
OH	GAUGA CO	81,129	.	.	.	0.117	0.088	.	.
OH	GREENE CO	136,731	.	.	.	0.116	0.097	43	.
OH	HAMILTON CO	866,228	4.4	0.01	0.0293	0.124	0.092	84	0.029
OH	HANCOCK CO	65,536	.	.	.	.	.	44	.
OH	JEFFERSON CO	80,298	3.6	.	.	0.089	0.077	65	0.047
OH	KNOX CO	47,473	.	.	.	0.102	0.091	.	.
OH	LAKE CO	215,499	1.6	.	.	0.123	0.100	50	0.057
OH	LAWRENCE CO	61,834	.	.	.	0.136	0.101	50	0.020
OH	LICKING CO	128,300	.	.	.	0.112	0.096	.	.
OH	LOGAN CO	42,310	.	0.24	.	0.099	0.081	.	.
OH	LORAIN CO	271,126	.	.	.	0.105	0.088	80	0.020
OH	LUCAS CO	462,361	2.1	.	.	0.106	0.090	51	0.024
OH	MADISON CO	37,068	.	.	.	0.112	0.099	.	.
OH	MAHONING CO	264,806	.	.	.	0.114	0.097	62	0.023
OH	MEDINA CO	122,354	.	.	.	0.106	0.092	.	.
OH	MEIGS CO	22,987	.	.	.	.	.	.	0.026
OH	MIAMI CO	93,182	.	.	.	0.109	0.090	.	.
OH	MONROE CO	15,497	.	.	.	.	.	54	.
OH	MONTGOMERY CO	573,809	3.4	0.01	.	0.112	0.093	61	0.022
OH	MORGAN CO	14,194	.	.	.	.	.	.	0.070
OH	OTTAWA CO	40,029	.	.	.	.	.	54	.

Table A-12. Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> 24-hr (ppm)
OH	PORTAGE CO	142,585	.	.	.	0.110	0.097	.	.
OH	PREBLE CO	40,113	.	.	.	0.102	0.081	.	.
OH	RICHLAND CO	126,137	.	.	.	.	.	66	.
OH	SANDUSKY CO	61,963	.	.	.	.	.	72	.
OH	SCIOTO CO	80,327	.	.	.	.	.	54	0.014
OH	SENECA CO	59,733	.	.	.	.	.	56	.
OH	STARK CO	367,585	3.5	.	.	0.115	0.098	58	0.029
OH	SUMMIT CO	514,990	3.0	0.02	.	0.114	0.097	70	0.044
OH	TRUMBULL CO	227,813	.	.	.	0.115	0.101	63	.
OH	TUSCARAWAS CO	84,090	.	.	.	.	.	.	0.049
OH	UNION CO	31,969	.	.	.	0.112	0.088	.	.
OH	WARREN CO	113,909	.	.	.	0.123	0.097	.	.
OH	WASHINGTON CO	62,254	.	.	.	0.115	0.091	68	.
OH	WOOD CO	113,269	.	.	.	0.097	0.083	.	.
OH	WYANDOT CO	22,254	.	.	.	.	.	92	.
OK	CLEVELAND CO	174,253	2.6	.	0.0124	0.111	0.093	.	.
OK	COMANCHE CO	111,486	1.8	.	.	0.093	0.085	.	.
OK	GARFIELD CO	56,735	.	.	0.0079	.	.	.	.
OK	KAY CO	48,056	.	.	.	.	.	41	0.022
OK	LATIMER CO	10,333	.	.	.	0.108	0.093	.	.
OK	MC CLAIN CO	22,795	.	.	.	0.104	0.087	.	.
OK	MAYES CO	33,366	.	.	.	0.106	0.087	.	.
OK	MUSKOGEE CO	68,078	.	.	0.0075	0.091	0.081	70	0.016
OK	OKLAHOMA CO	599,611	4.1	.	0.0099	0.109	0.090	46	0.007
OK	OKMULGEE CO	36,490	.	.	.	0.106	0.092	.	.
OK	TULSA CO	503,341	4.7	.	0.0150	0.119	0.093	56	0.059
OR	CLACKAMAS CO	278,850	.	.	.	0.136	0.081	36	.
OR	COLUMBIA CO	37,557	.	.	.	0.093	0.066	.	.
OR	DESCHUTES CO	74,958	4.4	.	.	.	.	69	.
OR	JACKSON CO	146,389	5.3	0.03	.	0.117	0.085	70	.
OR	JOSEPHINE CO	62,649	4.7	.	.	.	.	51	.
OR	KLAMATH CO	57,702	4.5	.	.	.	.	80	.
OR	LAKE CO	7,186	.	.	.	.	.	75	.
OR	LANE CO	282,912	4.6	0.02	.	0.106	0.078	78	.
OR	MARION CO	228,483	4.6	.	.	0.112	0.077	.	.
OR	MULTNOMAH CO	583,887	4.6	0.05	.	.	.	59	.
OR	UMATILLA CO	59,249	.	.	.	.	.	68	.
OR	UNION CO	23,598	.	.	.	.	.	57	.
OR	YAMHILL CO	65,551	.	0.30	.	.	.	.	.
PA	ADAMS CO	78,274	0.6	.	0.0034	.	.	.	.
PA	ALLEGHENY CO	1,336,449	3.8	0.06	0.0310	0.118	0.104	130	0.065
PA	ARMSTRONG CO	73,478	.	.	.	0.113	0.100	.	.
PA	BEAVER CO	186,093	1.5	0.05	0.0187	0.116	0.098	86	0.094
PA	BERKS CO	336,523	3.2	0.71	0.0208	0.106	0.092	58	0.025
PA	BLAIR CO	130,542	1.2	.	0.0126	0.114	0.098	58	0.032
PA	BUCKS CO	541,174	3.5	.	0.0180	0.115	0.096	59	0.024
PA	CAMBRIA CO	163,029	3.1	0.04	0.0152	0.124	0.098	64	0.027
PA	CARBON CO	56,846	.	0.12	.	.	.	.	.
PA	CENTRE CO	123,786	.	.	.	0.113	0.092	.	.
PA	CHESTER CO	376,396	.	.	.	.	.	66	.
PA	CLEARFIELD CO	78,097	.	.	.	0.116	0.101	.	.
PA	DAUPHIN CO	237,813	3.0	0.04	0.0185	0.116	0.097	65	0.021
PA	DELAWARE CO	547,651	.	0.04	0.0191	0.125	0.099	72	0.035
PA	ERIE CO	275,572	5.1	.	0.0142	0.122	0.098	64	0.068

Table A-12. Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> 24-hr (ppm)
PA	FRANKLIN CO	121,082	.	.	.	0.120	0.104	.	.
PA	GREENE CO	39,550	.	.	.	0.110	0.100	.	0.021
PA	LACKAWANNA CO	219,039	1.9	.	0.0160	0.108	0.089	54	0.026
PA	LANCASTER CO	422,822	1.9	0.04	0.0149	0.119	0.101	62	0.020
PA	LAWRENCE CO	96,246	2.4	.	0.0188	0.096	0.077	93	0.032
PA	LEHIGH CO	291,130	2.9	.	0.0163	0.106	0.095	51	0.030
PA	LUZERNE CO	328,149	3.1	.	0.0148	0.102	0.088	53	0.022
PA	LYCOMING CO	118,710	.	.	.	0.099	0.084	.	0.021
PA	MERCER CO	121,003	.	0.04	.	0.121	0.106	75	0.029
PA	MONROE CO	95,709	1.0	.	.	0.108	0.091	.	0.014
PA	MONTGOMERY CO	678,111	1.8	0.04	0.0193	0.126	0.103	54	0.022
PA	NORTHAMPTON CO	247,105	2.5	0.00	0.0170	0.111	0.089	37	0.033
PA	PERRY CO	41,172	.	.	0.0060	0.110	0.092	53	0.012
PA	PHILADELPHIA CO	1,585,577	4.9	1.64	0.0340	0.116	0.095	105	0.030
PA	SCHUYLKILL CO	152,585	1.4	.	.	.	.	.	0.026
PA	WARREN CO	45,050	.	.	.	.	.	.	0.098
PA	WASHINGTON CO	204,584	2.0	.	0.0172	0.127	0.108	62	0.043
PA	WESTMORELAND CO	370,321	2.3	0.04	0.0178	0.101	0.082	71	0.039
PA	YORK CO	339,574	2.4	0.05	0.0186	0.112	0.095	60	0.023
RI	KENT CO	161,135	.	.	.	0.109	0.087	32	.
RI	PROVIDENCE CO	596,270	4.7	.	0.0249	0.098	0.077	59	0.027
RI	WASHINGTON CO	110,006	.	.	.	0.101	0.080	.	.
SC	ABBEVILLE CO	23,862	.	.	.	0.114	0.091	.	.
SC	AIKEN CO	120,940	.	0.02	.	0.111	0.098	51	.
SC	ANDERSON CO	145,196	.	.	.	0.125	0.102	.	.
SC	BARNWELL CO	20,293	.	.	.	0.111	0.095	44	.
SC	BEAUFORT CO	86,425	.	0.03	.	.	.	.	.
SC	BERKELEY CO	128,776	.	.	.	0.106	0.083	.	.
SC	CHARLESTON CO	295,039	2.9	0.03	0.0095	0.096	0.081	57	0.013
SC	CHEROKEE CO	44,506	.	.	.	0.120	0.096	.	.
SC	CHESTER CO	32,170	.	.	.	0.122	0.093	.	.
SC	COLLETON CO	34,377	.	.	.	0.099	0.087	.	.
SC	DARLINGTON CO	61,851	.	.	.	0.108	0.089	.	.
SC	EDGEFIELD CO	18,375	.	.	.	0.119	0.091	.	.
SC	FAIRFIELD CO	22,295	.	.	.	.	.	53	.
SC	FLORENCE CO	114,344	.	0.01	.	.	.	.	.
SC	GEORGETOWN CO	46,302	.	0.02	.	.	.	75	0.004
SC	GREENVILLE CO	320,167	4.3	0.02	0.0166	.	.	58	0.015
SC	GREENWOOD CO	59,567	.	0.01	.	.	.	.	.
SC	LEXINGTON CO	167,611	.	.	.	.	.	188	0.022
SC	OCONEE CO	57,494	.	.	.	0.106	0.093	.	0.006
SC	PICKENS CO	93,894	.	.	.	0.109	0.096	.	.
SC	RICHLAND CO	285,720	3.7	0.01	0.0137	0.116	0.098	145	0.010
SC	SPARTANBURG CO	226,800	.	0.01	.	0.112	0.097	48	.
SC	SUMTER CO	102,637	.	0.01	.	.	.	.	.
SC	UNION CO	30,337	.	.	.	0.105	0.087	.	.
SC	WILLIAMSBURG CO	36,815	.	.	.	0.091	0.079	.	.
SC	YORK CO	131,497	.	0.02	.	0.114	0.087	57	.
SD	BROOKINGS CO	25,207	.	.	.	.	.	54	.
SD	MINNEHAHA CO	123,809	.	.	.	.	.	54	.
SD	PENNINGTON CO	81,343	.	.	.	.	.	113	.
TN	ANDERSON CO	68,250	.	.	.	0.107	0.088	.	0.024
TN	BLOUNT CO	85,969	.	.	.	0.120	0.110	64	0.038
TN	BRADLEY CO	73,712	.	.	0.0145	.	.	50	0.031

Table A-12. Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> 24-hr (ppm)
TN	COFFEE CO	40,339	.	.	0.0045	0.096	0.081	.	0.015
TN	DAVIDSON CO	510,784	5.6	.	0.0109	0.120	0.091	66	0.024
TN	HAMBLÉN CO	50,480	.	.	.	.	.	.	0.036
TN	HAMILTON CO	285,536	.	.	.	0.131	0.103	57	.
TN	HAWKINS CO	44,565	.	.	.	.	.	.	0.057
TN	HAYWOOD CO	19,437	.	.	.	0.128	0.098	.	0.009
TN	HUMPHREYS CO	15,795	.	.	.	.	.	.	0.019
TN	JEFFERSON CO	33,016	.	.	.	0.126	0.107	.	.
TN	KNOX CO	335,749	3.9	0.00	.	0.138	0.114	64	.
TN	LAWRENCE CO	35,303	.	.	.	0.105	0.090	40	.
TN	MC MINN CO	42,383	.	.	0.0151	.	.	84	0.045
TN	MADISON CO	77,982	.	0.01	.	.	.	38	.
TN	MAURY CO	54,812	.	.	.	.	.	75	.
TN	MONTGOMERY CO	100,498	.	.	.	.	.	45	0.020
TN	POLK CO	13,643	.	.	.	.	.	.	0.111
TN	PUTNAM CO	51,373	.	.	.	0.106	0.090	.	.
TN	ROANE CO	47,227	.	0.33	.	.	.	67	0.022
TN	RUTHERFORD CO	118,570	.	.	.	0.104	0.087	.	.
TN	SEVIER CO	51,043	.	.	.	0.120	0.106	.	.
TN	SHELBY CO	826,330	5.4	2.02	0.0285	0.130	0.103	65	0.041
TN	STEWART CO	9,479	.	.	.	.	.	.	0.013
TN	SULLIVAN CO	143,596	3.4	0.31	0.0170	0.115	0.097	50	0.039
TN	SUMNER CO	103,281	2.1	.	0.0131	0.127	0.107	87	0.046
TN	UNION CO	13,694	.	.	.	.	.	174	.
TN	WASHINGTON CO	92,315	.	.	.	.	.	47	.
TN	WILLIAMSON CO	81,021	.	1.25	.	0.114	0.096	.	.
TN	WILSON CO	67,675	.	.	.	0.105	0.085	.	.
TX	BEXAR CO	1,185,394	4.6	.	0.0240	0.121	0.090	61	.
TX	BOWIE CO	81,665	.	.	.	.	.	.	0.009
TX	BRAZORIA CO	191,707	.	.	.	0.111	0.090	.	.
TX	BREWSTER CO	8,681	.	.	.	0.077	0.070	.	.
TX	CAMERON CO	260,120	3.2	0.01	.	0.081	0.071	62	0.005
TX	CASS CO	29,982	.	.	.	.	.	.	0.008
TX	COLLIN CO	264,036	.	0.67	.	0.118	0.097	75	.
TX	DALLAS CO	1,852,810	4.4	0.10	0.0200	0.118	0.094	68	0.006
TX	DENTON CO	273,525	.	.	.	0.122	0.101	.	.
TX	ELLIS CO	85,167	.	0.30	.	0.130	0.097	67	0.023
TX	EL PASO CO	591,610	8.3	0.14	0.0310	0.125	0.092	258	0.027
TX	GALVESTON CO	217,399	.	.	0.0030	0.168	0.113	69	0.039
TX	GREGG CO	104,948	.	.	.	0.129	0.104	.	.
TX	HARRIS CO	2,818,199	5.2	.	0.0230	0.203	0.121	129	0.024
TX	HIDALGO CO	383,545	.	.	.	0.086	0.071	.	.
TX	JEFFERSON CO	239,397	.	.	0.0079	0.143	0.096	.	0.050
TX	LUBBOCK CO	222,636	.	.	.	.	.	44	.
TX	MARION CO	9,984	.	.	.	0.094	0.076	.	.
TX	NUECES CO	291,145	.	.	.	0.102	0.082	68	0.029
TX	ORANGE CO	80,509	.	.	0.0089	0.110	0.076	.	.
TX	SMITH CO	151,309	.	.	.	0.108	0.090	.	.
TX	TARRANT CO	1,170,103	2.5	.	0.0140	0.128	0.102	50	.
TX	TRAVIS CO	576,407	1.1	.	0.0040	0.115	0.088	.	.
TX	VICTORIA CO	74,361	.	.	.	0.097	0.078	.	.
TX	WEBB CO	133,239	3.9	0.02	.	0.097	0.067	.	.
UT	CACHE CO	70,183	5.0	.	.	0.080	0.068	76	.
UT	DAVIS CO	187,941	3.1	.	0.0201	0.122	0.096	.	0.010

Table A-12. Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> 24-hr (ppm)
UT	GRAND CO	6,620	.	.	.	.	.	52	.
UT	SALT LAKE CO	725,956	5.7	0.09	0.0272	0.124	0.095	105	0.010
UT	SAN JUAN CO	12,621	.	.	.	0.078	0.071	.	.
UT	UTAH CO	263,590	6.0	.	0.0239	0.114	0.090	80	.
UT	WEBER CO	158,330	7.5	.	0.0243	0.111	0.090	71	.
VT	BENNINGTON CO	35,845	.	.	.	0.085	0.075	.	.
VT	CHITTENDEN CO	131,761	2.4	.	0.0175	0.082	0.073	54	0.008
VT	RUTLAND CO	62,142	2.4	.	0.0127	.	.	48	0.029
VT	WASHINGTON CO	54,928	.	.	.	.	.	49	.
VA	ARLINGTON CO	170,936	2.3	.	0.0253	0.112	0.098	.	.
VA	CAROLINE CO	19,217	.	.	.	0.121	0.095	.	.
VA	CARROLL CO	26,594	.	.	.	.	.	36	.
VA	CHARLES CITY CO	6,282	.	.	0.0117	0.116	0.092	.	0.019
VA	CHESTERFIELD CO	209,274	.	.	.	0.116	0.090	.	.
VA	CULPEPER CO	27,791	.	.	.	.	.	39	.
VA	FAIRFAX CO	818,584	3.3	0.03	0.0234	0.127	0.103	45	0.025
VA	FAUQUIER CO	48,741	.	.	.	0.111	0.093	.	.
VA	FREDERICK CO	45,723	.	.	.	0.113	0.098	.	.
VA	HANOVER CO	63,306	.	.	.	0.125	0.100	.	.
VA	HENRICO CO	217,881	.	.	.	0.121	0.096	.	.
VA	KING WILLIAM CO	10,913	.	.	.	.	.	48	.
VA	LOUDOUN CO	86,129	.	.	.	0.116	0.102	.	.
VA	MADISON CO	11,949	.	.	.	0.115	0.098	.	.
VA	NORTHUMBERLAND CO	10,524	.	.	.	.	.	44	.
VA	PRINCE WILLIAM CO	215,686	.	.	0.0146	0.124	0.098	50	.
VA	ROANOKE CO	79,332	.	.	0.0141	0.126	0.099	.	0.009
VA	ROCKINGHAM CO	57,482	.	.	.	.	.	55	0.009
VA	STAFFORD CO	61,236	.	.	.	0.126	0.092	.	.
VA	TAZEWELL CO	45,960	.	.	.	.	.	38	.
VA	WARREN CO	26,142	.	.	.	.	.	45	.
VA	WISE CO	39,573	.	.	.	.	.	40	.
VA	WYTHE CO	25,466	.	.	.	0.098	0.087	.	.
VA	ALEXANDRIA	111,183	3.5	.	0.0272	0.114	0.094	.	0.022
VA	CHARLOTTESVILLE	40,341	.	.	.	.	.	49	.
VA	CHESAPEAKE	151,976	.	.	.	.	.	48	.
VA	FREDERICKSBURG	19,027	.	.	.	.	.	41	.
VA	HAMPTON	133,793	.	.	.	0.104	0.090	47	0.018
VA	NEWPORT NEWS	170,045	2.8	.	.	.	.	.	.
VA	NORFOLK	261,229	6.2	.	0.0194	.	.	49	0.021
VA	RICHMOND	203,056	1.9	0.01	0.0212	.	.	53	0.016
VA	ROANOKE	96,397	3.9	.	.	.	.	64	.
VA	SUFFOLK	52,141	.	.	.	0.105	0.087	.	.
VA	WINCHESTER	21,947	.	.	.	.	.	48	.
WA	ASOTIN CO	17,605	.	.	.	.	.	86	.
WA	BENTON CO	112,560	.	.	.	.	.	90	.
WA	CHELAN CO	52,250	.	.	.	.	.	46	.
WA	CLALLAM CO	56,464	.	.	.	0.062	0.046	39	0.007
WA	CLARK CO	238,053	5.5	.	0.0121	0.097	0.070	26	.
WA	COWLITZ CO	82,119	.	.	0.0073	0.094	0.070	45	.
WA	KING CO	1,507,319	5.5	2.03	0.0204	0.135	0.085	67	0.016
WA	KITSAP CO	189,731	.	.	.	.	.	24	.
WA	KITTITAS CO	26,725	.	.	.	.	.	72	.
WA	KLICKITAT CO	16,616	.	.	.	0.077	0.063	.	.
WA	LEWIS CO	59,358	.	.	.	0.065	0.056	.	.

Table A-12. Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> 24-hr (ppm)
WA	PIERCE CO	586,203	5.8	.	.	0.126	0.085	62	0.020
WA	SKAGIT CO	79,555	.	.	.	0.052	0.042	.	0.042
WA	SNOHOMISH CO	465,642	5.1	.	.	.	.	44	0.009
WA	SPOKANE CO	361,364	6.8	.	.	0.082	0.070	89	.
WA	STEVENS CO	30,948	.	.	.	.	.	82	.
WA	THURSTON CO	161,238	4.8	.	.	0.105	0.074	47	.
WA	WALLA WALLA CO	48,439	.	.	.	.	.	136	.
WA	WHATCOM CO	127,780	.	.	.	0.070	0.056	32	0.015
WA	YAKIMA CO	188,823	5.1	.	.	.	.	81	.
WV	BROOKE CO	26,992	.	.	.	.	.	63	0.062
WV	CABELL CO	96,827	.	.	.	0.136	0.105	.	0.023
WV	FAYETTE CO	47,952	.	.	.	.	.	45	.
WV	GREENBRIER CO	34,693	.	.	.	0.113	0.102	.	0.014
WV	HANCOCK CO	35,233	13.2	.	0.0145	0.099	0.088	119	0.067
WV	KANAWHA CO	207,619	2.0	.	0.0221	0.115	0.091	42	0.037
WV	MARSHALL CO	37,356	.	.	.	.	.	53	0.061
WV	MONONGALIA CO	75,509	.	.	.	.	.	48	0.041
WV	OHIO CO	50,871	3.5	.	.	0.104	0.087	56	0.040
WV	PUTNAM CO	42,835	.	.	.	.	.	53	.
WV	WAYNE CO	41,636	.	.	.	.	.	43	0.038
WV	WOOD CO	86,915	.	.	.	0.111	0.094	54	0.089
WI	BROWN CO	194,594	.	.	.	0.098	0.077	.	0.011
WI	COLUMBIA CO	45,088	.	.	.	0.089	0.076	.	.
WI	DANE CO	367,085	.	.	.	0.089	0.076	79	0.016
WI	DODGE CO	76,559	.	.	.	0.100	0.081	.	.
WI	DOOR CO	25,690	.	.	.	0.114	0.092	.	.
WI	DOUGLAS CO	41,758	.	.	.	.	.	44	.
WI	FLORENCE CO	4,590	.	.	.	0.086	0.076	.	.
WI	FOND DU LAC CO	90,083	.	.	.	0.094	0.078	.	.
WI	JEFFERSON CO	67,783	.	.	.	0.093	0.082	.	.
WI	KENOSHA CO	128,181	.	.	.	0.127	0.093	.	.
WI	KEWAUNEE CO	18,878	.	.	.	0.107	0.091	.	.
WI	MANITOWOC CO	80,421	.	.	0.0034	0.114	0.097	.	.
WI	MARATHON CO	115,400	.	.	.	0.098	0.077	59	0.031
WI	MILWAUKEE CO	959,275	2.5	.	0.0212	0.129	0.093	64	0.022
WI	ONEIDA CO	31,679	.	.	.	0.086	0.070	.	0.044
WI	OUTAGAMIE CO	140,510	.	.	.	0.086	0.072	.	.
WI	OZAUKEE CO	72,831	.	.	.	0.134	0.095	.	.
WI	POLK CO	34,773	0.6	.	.	0.090	0.078	.	.
WI	RACINE CO	175,034	3.0	.	.	0.124	0.084	.	.
WI	ROCK CO	139,510	.	.	.	0.100	0.084	.	.
WI	ST CROIX CO	50,251	.	.	.	0.090	0.073	.	.
WI	SAUK CO	46,975	.	.	0.0042	0.089	0.080	.	.
WI	SHEBOYGAN CO	103,877	.	.	.	0.134	0.095	.	.
WI	VERNON CO	25,617	.	.	.	0.082	0.073	41	.
WI	VILAS CO	17,707	.	.	.	.	.	27	.
WI	WALWORTH CO	75,000	.	.	.	0.100	0.084	.	.
WI	WASHINGTON CO	95,328	.	.	.	0.103	0.079	.	.
WI	WAUKESHA CO	304,715	2.1	.	.	0.097	0.077	62	.
WI	WINNEBAGO CO	140,320	.	.	.	0.084	0.074	.	.
WI	WOOD CO	73,605	.	.	.	.	.	.	0.020
WY	ALBANY CO	30,797	.	.	.	.	.	44	.
WY	CAMPBELL CO	29,370	.	.	.	.	.	66	.
WY	CONVERSE CO	11,128	.	.	.	.	.	77	.

**Table A-12.** Maximum Air Quality Concentrations by County, 1998 (continued)

State	County	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> (1-hr) 2nd Max (ppm)	O <sub>3</sub> (8-hr) 4th Max (ppm)	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> 24-hr (ppm)
WY	FREMONT CO	33,662	.	.	.	.	.	70	.
WY	LARAMIE CO	73,142	.	.	.	.	.	31	.
WY	NATRONA CO	61,226	.	.	.	.	.	37	.
WY	PARK CO	23,178	.	.	.	.	.	51	.
WY	SHERIDAN CO	23,562	.	.	.	.	.	82	.
WY	SWEETWATER CO	38,823	.	.	.	.	.	70	.
WY	TETON CO	11,172	.	.	.	0.072	0.066	64	.

- CO = Highest second maximum non-overlapping 8-hour concentration (*Applicable NAAQS is 9 ppm*)
- Pb = Highest quarterly maximum concentration (*Applicable NAAQS is 1.5 µg/m<sup>3</sup>*)
- NO<sub>2</sub> = Highest arithmetic mean concentration (*Applicable NAAQS is 0.053 ppm*)
- O<sub>3</sub> (1-hr) = Highest second daily maximum 1-hour concentration (*Applicable NAAQS is 0.12 ppm*)
- O<sub>3</sub> (8-hr) = Highest fourth daily maximum 8-hour concentration (*Applicable NAAQS is 0.08 ppm*)
- PM<sub>10</sub> = Highest second maximum 24-hour concentration (*Applicable NAAQS is 150 µg/m<sup>3</sup>*)
- SO<sub>2</sub> = Highest second maximum 24-hour concentration (*Applicable NAAQS is 0.14 ppm*)
- PPM = Units are parts per million
- µg/m<sup>3</sup> = Units are micrograms per cubic meter

Data from exceptional events not included.

**Note:** The reader is cautioned that this summary is not adequate in itself to numerically rank counties according to their air quality. The monitoring data represent the quality of air in the vicinity of the monitoring site but may not necessarily represent urban-wide air quality.

Table A-13. Maximum Air Quality Concentrations by Metropolitan Statistical Area, 1998

Metropolitan Statistical Area	1990 Population	CO 8-hr (ppm)	Pb QMax ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> 1-hr (ppm)	O <sub>3</sub> 8-hr (ppm)	PM <sub>10</sub> Wtd AM ( $\mu\text{g}/\text{m}^3$ )	PM <sub>10</sub> 2nd Max ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> AM (ppm)	SO <sub>2</sub> 24-hr (ppm)
ABILENE, TX	119,655	ND	ND	ND	ND	ND	ND	ND	ND	ND
AGUADILLA, PR	128,172	ND	ND	ND	ND	ND	ND	ND	ND	ND
AKRON, OH	657,575	3	0.02	ND	0.11	0.10	24	70	0.010	0.044
ALBANY, GA	112,561	ND	ND	ND	ND	ND	IN	66	0.001	0.006
ALBANY-SCHENECTADY-TROY, NY	861,424	4	0.03	0.015	0.10	0.08	21	58	0.004	0.016
ALBUQUERQUE, NM	589,131	6	ND	0.016	0.09	0.07	17*	87	ND	ND
ALEXANDRIA, LA	131,556	ND	ND	ND	ND	ND	ND	ND	ND	ND
ALLENTOWN-BETHLEHEM-EASTON, PA	595,081	3	0.12	0.017	0.11	0.10	IN	41	0.011	0.033
ALTOONA, PA	130,542	1	ND	0.013	0.11	0.10	IN	58	0.008	0.032
AMARILLO, TX	187,547	ND	ND	ND	ND	ND	ND	ND	ND	ND
ANCHORAGE, AK	226,338	8	ND	ND	ND	ND	26	98	ND	ND
ANN ARBOR, MI	490,058	ND	ND	ND	0.10	0.09	ND	ND	ND	ND
ANNISTON, AL	116,034	ND	ND	ND	ND	ND	IN	IN	ND	ND
APPLETON-OSHKOSH-NEENAH, WI	315,121	ND	ND	ND	0.09	0.07	ND	ND	ND	ND
ARECIBO, PR	155,005	ND	ND	ND	ND	ND	ND	ND	ND	ND
ASHEVILLE, NC	191,774	ND	ND	ND	0.11	0.09	20	55	ND	ND
ATHENS, GA	126,262	ND	ND	ND	ND	ND	ND	ND	ND	ND
ATLANTA, GA	2,959,950	4	0.01	0.024	0.16	0.13	31	71	0.005	0.019
ATLANTIC-CAPE MAY, NJ	319,416	ND	ND	ND	0.12	0.09	ND	ND	0.003	0.010
AUGUSTA-AIKEN, GA-SC	415,184	ND	0.02	ND	0.12	0.10	28	60	0.003	0.011
AURORA-ELGIN, IL	356,884	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUSTIN-SAN MARCOS, TX	846,227	1	ND	0.004	0.12	0.09	ND	ND	ND	ND
BAKERSFIELD, CA	543,477	3	0.00	0.024	0.16	0.12	40	131	ND	ND
BALTIMORE, MD	2,382,172	5	0.01	0.026	0.14	0.11	31	65	0.007	0.020
BANGOR, ME	91,629	ND	ND	ND	0.09	0.08	18	40	ND	ND
BARNSTABLE-YARMOUTH, MA	134,954	ND	ND	ND	ND	ND	ND	ND	ND	ND
BATON ROUGE, LA	528,264	4	0.05	0.019	0.13	0.11	32*	64*	0.007	0.036
BEAUMONT-PORT ARTHUR, TX	361,226	ND	ND	0.009	0.14	0.10	ND	ND	0.008	0.050
BELLINGHAM, WA	127,780	ND	ND	ND	0.07	0.06	13	31	0.005	0.015
BENTON HARBOR, MI	161,378	ND	ND	ND	0.14	0.09	ND	ND	ND	ND
BERGEN-PASSAIC, NJ	1,278,440	4	ND	IN	0.10	0.09	38*	59*	0.004	0.018
BILLINGS, MT	113,419	5	ND	ND	ND	ND	ND	ND	0.006	0.032
BILOXI-GULFPORT-PASCAGOULA, MS	312,368	ND	ND	0.004	0.12	0.10	IN	IN	0.003	0.022
BINGHAMTON, NY	264,497	ND	ND	ND	ND	ND	IN	51	ND	ND
BIRMINGHAM, AL	840,140	4	ND	0.009	0.14	0.11	36	109	0.007	0.032
BISMARCK, ND	83,831	ND	ND	ND	ND	ND	16	32	0.006	0.116
BLOOMINGTON, IN	108,978	ND	ND	ND	ND	ND	ND	ND	ND	ND
BLOOMINGTON-NORMAL, IL	129,180	ND	ND	ND	ND	ND	ND	ND	ND	ND
BOISE CITY, ID	295,851	4	ND	0.020	ND	ND	27	67	ND	ND
BOSTON, MA-NH	3,227,707	3	0.03	0.031	0.11	0.10	32	71	0.010	0.036
BOULDER-LONGMONT, CO	225,339	5	ND	ND	0.11	0.09	IN	45	ND	ND
BRAZORIA, TX	191,707	ND	ND	ND	0.11	0.09	ND	ND	ND	ND
BREMERTON, WA	189,731	ND	ND	ND	ND	ND	13	24	ND	ND
BRIDGEPORT, CT	443,722	3	ND	0.018	0.13	0.10	21	46	0.007	0.024
BROCKTON, MA	236,409	ND	ND	0.008	0.11	0.09	ND	ND	ND	ND
BROWNSVILLE-HARLINGEN-SAN BENITO, TX	260,120	3	0.01	ND	0.08	0.07	25*	62*	0.001	0.005
BRYAN-COLLEGE STATION, TX	121,862	ND	ND	ND	ND	ND	ND	ND	ND	ND
BUFFALO-NIAGARA FALLS, NY	1,189,288	3	0.04	0.021	0.11	0.09	24	55	0.009	0.049
BURLINGTON, VT	151,506	2	ND	0.018	ND	ND	21	54	0.002	0.008
CAGUAS, PR	279,501	ND	ND	ND	ND	ND	ND	ND	ND	ND
CANTON-MASSILLON, OH	394,106	4	ND	ND	0.12	0.10	26	58	0.007	0.029
CASPER, WY	61,226	ND	ND	ND	ND	ND	17	37	ND	ND
CEDAR RAPIDS, IA	168,767	3	ND	ND	0.08	0.07	25	76	0.005	0.020
CHAMPAIGN-URBANA, IL	173,025	ND	ND	ND	0.11	0.08	24	51	0.003	0.019

Table A-13. Maximum Air Quality Concentrations by Metropolitan Statistical Area, 1998 (continued)

Metropolitan Statistical Area	1990 Population	CO	Pb	NO <sub>2</sub>	O <sub>3</sub>	O <sub>3</sub>	PM <sub>10</sub>	PM <sub>10</sub>	SO <sub>2</sub>	SO <sub>2</sub>
		8-hr (ppm)	QMax (µg/m <sup>3</sup> )	AM (ppm)	1-hr (ppm)	8-hr (ppm)	Wtd AM (µg/m <sup>3</sup> )	2nd Max (µg/m <sup>3</sup> )	AM (ppm)	24-hr (ppm)
CHARLESTON-NORTH CHARLESTON, SC	506,875	3	0.03	0.010	0.11	0.08	25	57	0.003	0.013
CHARLESTON, WV	250,454	2	ND	0.022	0.12	0.09	23	53	0.011	0.037
CHARLOTTE-GASTONIA-ROCK HILL, NC-SC	1,162,093	5	0.02	0.018	0.14	0.11	32	72	0.004	0.011
CHARLOTTESVILLE, VA	131,107	ND	ND	ND	ND	ND	23	49	ND	ND
CHATTANOOGA, TN-GA	424,347	ND	ND	ND	0.13	0.10	29	56	ND	ND
CHEYENNE, WY	73,142	ND	ND	ND	ND	ND	IN	31	ND	ND
CHICAGO, IL	7,410,858	5	0.10	0.032	0.11	0.09	43	102	0.008	0.051
CHICO-PARADISE, CA	182,120	4	0.00	0.013	0.10	0.08	22	57	ND	ND
CINCINNATI, OH-KY-IN	1,526,092	4	0.01	0.029	0.12	0.10	32	84	0.010	0.040
CLARKSVILLE-HOPKINSVILLE, TN-KY	169,439	ND	ND	ND	0.11	0.09	23	45	0.006	0.020
CLEVELAND-LORAIN-ELYRIA, OH	2,202,069	6	0.65 <sup>a</sup>	0.027	0.12	0.10	45	117	0.011	0.057
COLORADO SPRINGS, CO	397,014	4	0.01	0.020	0.07	0.06	26	72	0.003	0.011
COLUMBIA, MO	112,379	ND	ND	ND	ND	ND	ND	ND	ND	ND
COLUMBIA, SC	453,331	4	0.01	0.014	0.12	0.10	51	188	0.004	0.022
COLUMBUS, GA-AL	260,860	ND	0.58 <sup>b</sup>	ND	0.11	0.09	30	55	ND	ND
COLUMBUS, OH	1,345,450	4	0.03 <sup>c</sup>	ND	0.12	0.10	34	83	0.005	0.019
CORPUS CHRISTI, TX	349,894	ND	ND	ND	0.10	0.08	35*	68*	0.004	0.029
CUMBERLAND, MD-WV	101,643	ND	ND	ND	ND	ND	IN	IN	IN	IN
DALLAS, TX	2,676,248	4	0.67 <sup>d</sup>	0.020	0.13	0.10	33*	75*	0.003	0.023
DANBURY, CT	193,597	ND	ND	ND	0.12	0.09	20	38	0.004	0.020
DANVILLE, VA	108,711	ND	ND	ND	ND	ND	ND	ND	ND	ND
DAVENPORT-MOLINE-ROCK ISLAND, IA-IL	350,861	ND	0.01	ND	0.10	0.08	30	121	0.004	0.018
DAYTON-SPRINGFIELD, OH	951,270	3	0.01	ND	0.13	0.10	28	61	0.005	0.022
DAYTONA BEACH, FL	399,413	ND	ND	ND	0.10	0.08	22	47	ND	ND
DECATUR, AL	131,556	ND	ND	ND	0.10	0.09	IN	IN	0.003	0.011
DECATUR, IL	117,206	ND	0.02	ND	0.09	0.08	32	68	0.005	0.020
DENVER, CO	1,622,980	5	0.11	0.035	0.12	0.10	36	99	0.004	0.023
DES MOINES, IA	392,928	10	ND	ND	0.08	0.07	30	66	ND	ND
DETROIT, MI	4,266,654	4	0.08	0.023	0.13	0.10	40	114	0.012	0.073
DOTHAN, AL	130,964	ND	ND	ND	ND	ND	IN	60	ND	ND
DOVER, DE	110,993	ND	ND	ND	0.13	0.10	ND	ND	ND	ND
DUBUQUE, IA	86,403	ND	ND	ND	ND	ND	ND	ND	ND	ND
DULUTH-SUPERIOR, MN-WI	239,971	4	ND	ND	0.08	0.07	20	81	ND	ND
DUTCHESS COUNTY, NY	259,462	ND	ND	ND	0.11	0.09	ND	ND	ND	ND
EAU CLAIRE, WI	137,543	ND	ND	ND	ND	ND	ND	ND	ND	ND
EL PASO, TX	591,610	8	0.14	0.031	0.13	0.09	49	198	0.006	0.027
ELKHART-GOSHEN, IN	156,198	ND	ND	ND	0.11	0.08	ND	ND	ND	ND
ELMIRA, NY	95,195	ND	ND	ND	0.09	0.08	ND	ND	0.003	0.011
ENID, OK	56,735	ND	ND	0.008	ND	ND	ND	ND	ND	ND
ERIE, PA	275,572	5	ND	0.014	0.12	0.10	IN	61	0.010	0.068
EUGENE-SPRINGFIELD, OR	282,912	5	0.02	ND	0.11	0.08	19	78	ND	ND
EVANSVILLE-HENDERSON, IN-KY	278,990	4	ND	0.018	0.12	0.10	29	67	0.015	0.071
FARGO-MOORHEAD, ND-MN	153,296	ND	ND	IN	0.07	IN	IN	IN	IN	IN
FAYETTEVILLE, NC	274,566	4	ND	ND	0.11	0.10	27	47	ND	ND
FAYETTEVILLE-SPRINGDALE-ROGERS, AR	259,462	ND	ND	ND	ND	ND	23*	44*	ND	ND
FITCHBURG-LEOMINSTER, MA	138,165	ND	ND	ND	ND	ND	ND	ND	ND	ND
FLAGSTAFF, AZ-UT	101,760	ND	ND	ND	0.08	0.07	ND	ND	ND	ND
FLINT, MI	430,459	ND	0.01	ND	0.11	0.09	IN	39	0.002	0.014
FLORENCE, AL	131,327	ND	ND	ND	ND	ND	IN	42	0.003	0.019
FLORENCE, SC	114,344	ND	0.01	ND	ND	ND	ND	ND	ND	ND
FORT COLLINS-LOVELAND, CO	186,136	4	ND	ND	0.09	0.08	IN	32	ND	ND
FORT LAUDERDALE, FL	1,255,488	4	0.03	0.010	0.11	0.08	22	51	0.003	0.017
FORT MYERS-CAPE CORAL, FL	335,113	ND	ND	ND	0.11	0.09	IN	36	ND	ND
FORT PIERCE-PORT ST. LUCIE, FL	251,071	ND	ND	ND	0.10	0.08	19	35	ND	ND

**Table A-13.** Maximum Air Quality Concentrations by Metropolitan Statistical Area, 1998 (continued)

Metropolitan Statistical Area	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> 1-hr (ppm)	O <sub>3</sub> 8-hr (ppm)	PM <sub>10</sub> Wtd AM (µg/m <sup>3</sup> )	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> AM (ppm)	SO <sub>2</sub> 24-hr (ppm)
FORT SMITH, AR-OK	175,911	ND	ND	ND	ND	ND	25*	49*	ND	ND
FORT WALTON BEACH, FL	143,776	ND	ND	ND	ND	ND	ND	ND	ND	ND
FORT WAYNE, IN	456,281	3	ND	ND	0.11	0.09	34	66	ND	ND
FORT WORTH-ARLINGTON, TX	1,361,034	3	ND	0.014	0.13	0.10	26*	50*	ND	ND
FRESNO, CA	755,580	7	0.00	0.020	0.17	0.12	39	117	ND	ND
GADSDEN, AL	99,840	ND	ND	ND	ND	ND	31	63	ND	ND
GAINESVILLE, FL	181,596	ND	ND	ND	0.11	0.09	22	39	ND	ND
GALVESTON-TEXAS CITY, TX	217,399	ND	ND	0.003	0.17	0.11	25*	69*	0.004	0.039
GARY, IN	604,526	5	0.12	0.019	0.12	0.09	32	136	0.009	0.055
GLENS FALLS, NY	118,539	ND	ND	ND	ND	ND	ND	ND	ND	ND
GOLDSBORO, NC	104,666	ND	ND	ND	ND	ND	22	44	ND	ND
GRAND FORKS, ND-MN	103,181	ND	ND	ND	ND	ND	IN	81	ND	ND
GRAND JUNCTION, CO	93,145	5	ND	ND	ND	ND	20	51	ND	ND
GRAND RAPIDS-MUSKEGON-HOLLAND, MI	937,891	3	0.01	ND	0.12	0.10	20	55	0.002	0.008
GREAT FALLS, MT	77,691	5	ND	ND	ND	ND	ND	ND	0.003	0.010
GREELEY, CO	131,821	4	ND	ND	0.10	0.08	IN	39	ND	ND
GREEN BAY, WI	194,594	ND	ND	ND	0.10	0.08	ND	ND	0.003	0.011
GREENSBORO—WINSTON-SALEM—HIGH POINT	1,050,304	5	ND	0.017	0.12	0.10	27	61	0.006	0.023
GREENVILLE, NC	107,924	ND	ND	ND	0.11	0.09	21	42	ND	ND
GREENVILLE-SPARTANBURG-ANDERSON, SC	830,563	4	0.02	0.017	0.13	0.1	24	58	0.003	0.015
HAGERSTOWN, MD	121,393	ND	ND	ND	ND	ND	ND	ND	ND	ND
HAMILTON-MIDDLETOWN, OH	291,479	ND	0.02	ND	0.12	0.09	36	74	0.007	0.022
HARRISBURG-LEBANON-CARLISLE, PA	587,986	3	0.04	0.019	0.12	0.1	22*	65	0.006	0.021
HARTFORD, CT	1,157,585	7	ND	0.02	0.13	0.1	21	66	0.005	0.019
HATTIESBURG, MS	98,738	ND	ND	ND	ND	ND	ND	ND	ND	ND
HICKORY-MORGANTON-LENOIR, NC	292,409	ND	ND	ND	0.13	0.1	23	43	ND	ND
HONOLULU, HI	836,231	2	ND	0.004	0.06	0.05	16	39	0.002	0.009
HOUMA, LA	182,842	ND	ND	ND	0.11	0.09	ND	ND	ND	ND
HOUSTON, TX	3,322,025	5	ND	0.023	0.2	0.12	54*	129*	0.004	0.024
HUNTINGTON-ASHLAND, WV-KY-OH	312,529	7	ND	IN	0.14	0.11	35	92	0.009	0.038
HUNTSVILLE, AL	293,047	3	ND	ND	0.12	0.09	22	56	ND	ND
INDIANAPOLIS, IN	1,380,491	3	0.08 <sup>e</sup>	0.019	0.13	0.1	30	58	0.006	0.024
IOWA CITY, IA	96,119	ND	ND	ND	ND	ND	ND	ND	ND	ND
JACKSON, MI	149,756	ND	ND	ND	ND	ND	ND	ND	ND	ND
JACKSON, MS	395,396	4	ND	ND	0.11	0.09	28	76	0.002	0.008
JACKSON, TN	90,801	ND	0.01	ND	ND	ND	IN	38	ND	ND
JACKSONVILLE, FL	906,727	3	0.02	0.015	0.1	0.1	IN	64	0.004	0.037
JACKSONVILLE, NC	149,838	ND	ND	ND	ND	ND	22	42	ND	ND
JAMESTOWN, NY	141,895	ND	ND	ND	0.11	0.1	23	62	0.007	0.032
JANESVILLE-BELOIT, WI	139,510	ND	ND	ND	0.1	0.08	ND	ND	ND	ND
JERSEY CITY, NJ	553,099	6	ND	0.027	0.12	0.09	27*	63*	0.009	0.024
JOHNSON CITY-KINGSPORT-BRISTOL, TN-VA	436,047	3	0.31	0.017	0.12	0.1	25	50	0.011	0.057
JOHNSTOWN, PA	241,247	3	0.04	0.015	0.12	0.1	IN	64	0.008	0.027
JONESBORO, AR	68,956	ND	ND	ND	ND	ND	27*	54*	ND	ND
JOPLIN, MO	134,910	ND	ND	ND	ND	ND	ND	ND	ND	ND
KALAMAZOO-BATTLE CREEK, MI	429,453	ND	ND	ND	0.11	0.09	IN	66	ND	ND
KANKAKEE, IL	96,255	ND	ND	ND	ND	ND	ND	ND	ND	ND
KANSAS CITY, MO-KS	1,582,875	5	0.01	0.013	0.13	0.1	35	64	0.005	0.015
KENOSHA, WI	128,181	ND	ND	ND	0.13	0.09	ND	ND	ND	ND
KILLEEN-TEMPLE, TX	255,301	ND	ND	ND	ND	ND	ND	ND	ND	ND
KNOXVILLE, TN	585,960	4	0	ND	0.14	0.11	48	174	0.007	0.038
KOKOMO, IN	96,946	ND	ND	ND	ND	ND	ND	ND	ND	ND
LA CROSSE, WI-MN	116,401	ND	ND	ND	ND	ND	ND	ND	ND	ND
LAFAYETTE, LA	344,853	ND	ND	ND	0.1	0.09	ND	ND	ND	ND

Table A-13. Maximum Air Quality Concentrations by Metropolitan Statistical Area, 1998 (continued)

Metropolitan Statistical Area	1990 Population	CO	Pb	NO <sub>2</sub>	O <sub>3</sub>	O <sub>3</sub>	PM <sub>10</sub>	PM <sub>10</sub>	SO <sub>2</sub>	SO <sub>2</sub>
		8-hr (ppm)	QMax (µg/m <sup>3</sup> )	AM (ppm)	1-hr (ppm)	8-hr (ppm)	Wtd AM (µg/m <sup>3</sup> )	2nd Max (µg/m <sup>3</sup> )	AM (ppm)	24-hr (ppm)
LAFAYETTE, IN	161,572	ND	ND	ND	ND	ND	ND	ND	ND	ND
LAKE CHARLES, LA	168,134	ND	ND	0.005	0.12	0.09	ND	ND	0.003	0.012
LAKELAND-WINTER HAVEN, FL	405,382	ND	ND	ND	0.11	0.09	26	91	0.006	0.027
LANCASTER, PA	422,822	2	0.04	0.015	0.12	0.1	32*	62	0.006	0.02
LANSING-EAST LANSING, MI	432,674	ND	ND	ND	0.1	0.08	ND	ND	ND	ND
LAREDO, TX	133,239	4	0.02	ND	0.1	0.07	ND	ND	ND	ND
LAS CRUCES, NM	135,510	4	0.04	0.01	0.12	0.08	32	148	0.004	0.019
LAS VEGAS, NV-AZ	852,737	10	ND	ND	0.11	0.09	45	188	ND	ND
LAWRENCE, KS	81,798	ND	ND	ND	ND	ND	ND	ND	ND	ND
LAWRENCE, MA-NH	353,232	ND	ND	ND	0.1	0.08	IN	39	0.008	0.031
LAWTON, OK	111,486	2	ND	IN	0.09	0.09	IN	IN	ND	ND
LEWISTON-AUBURN, ME	93,679	ND	ND	ND	ND	ND	18	36	0.004	0.019
LEXINGTON, KY	405,936	3	ND	0.011	0.11	0.09	24	64	0.006	0.023
LIMA, OH	154,340	ND	ND	ND	0.1	0.09	24	46	0.003	0.017
LINCOLN, NE	213,641	6	ND	ND	0.07	0.06	IN	IN	ND	ND
LITTLE ROCK-NORTH LITTLE ROCK, AR	513,117	5	ND	0.011	0.1	0.08	34*	98*	0.002	0.006
LONGVIEW-MARSHALL, TX	193,801	ND	ND	ND	0.13	0.1	ND	ND	ND	ND
LOS ANGELES-LONG BEACH, CA	8,863,164	12	0.05	0.043	0.2	0.14	41	78	0.004	0.012
LOUISVILLE, KY-IN	948,829	6	ND	0.023	0.14	0.1	27	58	0.009	0.045
LOWELL, MA-NH	280,578	3	ND	ND	ND	ND	ND	ND	ND	ND
LUBBOCK, TX	222,636	ND	ND	ND	ND	ND	21*	44*	ND	ND
LYNCHBURG, VA	193,928	ND	ND	ND	ND	ND	IN	IN	ND	ND
MACON, GA	290,909	ND	ND	ND	0.14	0.11	30	59	0.003	0.019
MADISON, WI	367,085	IN	ND	ND	0.09	0.08	27	75	0.003	0.016
MANCHESTER, NH	50,000	ND	ND	ND	ND	ND	IN	IN	ND	ND
MANSFIELD, OH	174,007	ND	ND	ND	ND	ND	24	66	ND	ND
MAYAGUEZ, PR	237,143	ND	ND	ND	ND	ND	ND	ND	ND	ND
MCALLEN-EDINBURG-MISSION, TX	383,545	ND	ND	ND	0.09	0.07	ND	ND	ND	ND
MEDFORD-ASHLAND, OR	146,389	5	0.03	ND	0.12	0.09	20	70	ND	ND
MELBOURNE-TITUSVILLE-PALM BAY, FL	398,978	ND	ND	ND	0.1	0.09	17	44	ND	ND
MEMPHIS, TN-AR-MS	1,007,306	5	2.02 <sup>f</sup>	0.029	0.13	0.1	28	65	0.006	0.041
MERCED, CA	178,403	ND	ND	0.011	0.14	0.11	ND	ND	ND	ND
MIAMI, FL	1,937,094	3	ND	0.015	0.11	0.09	28	62	0.001	0.004
MIDDLESEX-SOMERSET-HUNTERDON, NJ	1,019,835	3	0.08 <sup>g</sup>	0.019	0.12	0.1	ND	ND	0.005	0.018
MILWAUKEE-WAUKESHA, WI	1,432,149	3	ND	0.021	0.13	0.1	30	63	0.004	0.022
MINNEAPOLIS-ST. PAUL, MN-WI	2,538,834	7	0.14 <sup>h</sup>	0.026	0.1	0.08	IN	73	0.005	0.019
MISSOULA, MT	78,687	ND	ND	ND	ND	ND	ND	ND	ND	ND
MOBILE, AL	476,923	ND	ND	ND	0.11	0.1	31	153	0.009	0.073
MODESTO, CA	370,522	5	0	0.018	0.15	0.11	31	105	ND	ND
MONMOUTH-OCEAN, NJ	986,327	3	ND	ND	0.14	0.1	ND	ND	ND	ND
MONROE, LA	142,191	ND	ND	ND	0.09	0.08	ND	ND	0.003	0.012
MONTGOMERY, AL	292,517	ND	ND	ND	0.12	0.09	27	57	0.002	0.01
MUNCIE, IN	119,659	ND	0.9 <sup>i</sup>	ND	ND	ND	ND	ND	ND	ND
MYRTLE BEACH, SC	144,053	ND	ND	ND	ND	ND	ND	ND	ND	ND
NAPLES, FL	152,099	ND	ND	ND	ND	ND	IN	41	ND	ND
NASHUA, NH	168,233	5	ND	0.015	0.1	0.08	IN	IN	0.007	0.027
NASHVILLE, TN	985,026	6	1.25 <sup>j</sup>	0.013	0.13	0.11	33	87	0.006	0.046
NASSAU-SUFFOLK, NY	2,609,212	4	ND	0.022	0.14	0.1	20	46	0.007	0.033
NEW BEDFORD, MA	175,641	ND	ND	ND	0.1	0.08	16	42	ND	ND
NEW HAVEN-MERIDEN, CT	530,180	3	ND	0.027	0.13	0.1	27	71	0.006	0.031
NEW LONDON-NORWICH, CT-RI	290,734	ND	ND	ND	0.12	0.08	18	41	0.004	0.018
NEW ORLEANS, LA	1,285,270	3	0.11	0.02	0.12	0.09	29	61*	0.004	0.026
NEW YORK, NY	8,546,846	6	0.14	0.04	0.13	0.09	56	114	0.012	0.038
NEWARK, NJ	1,915,928	5	ND	0.042	0.12	0.1	40*	71*	0.007	0.025

**Table A-13.** Maximum Air Quality Concentrations by Metropolitan Statistical Area, 1998 (continued)

Metropolitan Statistical Area	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> 1-hr (ppm)	O <sub>3</sub> 8-hr (ppm)	PM <sub>10</sub> Wtd AM (µg/m <sup>3</sup> )	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> AM (ppm)	SO <sub>2</sub> 24-hr (ppm)
NEWBURGH, NY-PA	335,613	ND	0.14 <sup>k</sup>	ND	0.1	0.09	ND	ND	ND	ND
NORFOLK-VIRGINIA BEACH-NEWPORT NEWS,VA	1,443,244	6	ND	0.019	0.11	0.09	24	49	0.006	0.021
OAKLAND, CA	2,082,914	4	0.01	0.02	0.14	0.1	22	59	0.003	0.014
Ocala, FL	194,833	ND	ND	ND	0.1	0.08	ND	ND	ND	ND
ODESSA-MIDLAND, TX	255,545	ND	ND	ND	ND	ND	ND	ND	ND	ND
OKLAHOMA CITY, OK	958,839	4	ND	0.012	0.11	0.09	IN	IN	0.003	0.007
OLYMPIA, WA	161,238	5	ND	ND	0.11	0.07	IN	46	ND	ND
OMAHA, NE-IA	639,580	8	0.25 <sup>l</sup>	ND	0.09	0.07	39	106	0.002	0.032
ORANGE COUNTY, CA	2,410,556	7	ND	0.034	0.16	0.09	36	65	0.002	0.005
ORLANDO, FL	1,224,852	4	ND	0.011	0.12	0.1	28	63	0.002	0.007
OWENSBORO, KY	87,189	1	ND	0.013	0.11	0.09	25	57	0.007	0.023
PANAMA CITY, FL	126,994	ND	ND	ND	ND	ND	IN	52	ND	ND
PARKERSBURG-MARIETTA, WV-OH	149,169	ND	ND	ND	0.12	0.09	29	68	0.013	0.089
PENSACOLA, FL	344,406	ND	ND	ND	0.13	0.1	22	50	0.004	0.024
PEORIA-PEKIN, IL	339,172	6	0.02	ND	0.09	0.08	26	54	0.007	0.045
PHILADELPHIA, PA-NJ	4,922,175	5	1.64 <sup>m</sup>	0.034	0.13	0.1	31*	105	0.01	0.035
PHOENIX-MESA, AZ	2,238,480	8	ND	0.035	0.11	0.09	81	208	0.008	0.027
PINE BLUFF, AR	85,487	ND	ND	ND	ND	ND	24*	47*	ND	ND
PITTSBURGH, PA	2,384,811	4	0.06	0.031	0.13	0.11	41	130	0.016	0.094
PITTSFIELD, MA	88,695	ND	ND	ND	0.08	IN	ND	ND	ND	ND
POCATELLO, ID	66,026	ND	ND	IN	ND	ND	27	92	0.006	0.034
PONCE, PR	3,442,660	ND	ND	ND	ND	ND	IN	IN	ND	ND
PORTLAND, ME	221,095	ND	ND	ND	0.12	0.09	IN	67	0.005	0.025
PORTLAND-VANCOUVER, OR-WA	1,515,452	6	0.3	0.012	0.14	0.08	29	59	ND	ND
PORTSMOUTH-ROCHESTER, NH-ME	223,271	ND	ND	0.012	0.12	0.09	IN	IN	0.004	0.016
PROVIDENCE-FALL RIVER-WARWICK, RI-MA	1,134,350	5	ND	0.025	0.11	0.09	18	59	0.007	0.027
PROVO-OREM, UT	263,590	6	ND	0.024	0.11	0.09	28	75	ND	ND
PUEBLO, CO	123,051	ND	ND	ND	ND	ND	IN	52	ND	ND
PUNTA GORDA, FL	110,975	ND	ND	ND	ND	ND	ND	ND	ND	ND
RACINE, WI	175,034	3	ND	ND	0.12	0.08	ND	ND	ND	ND
RALEIGH-DURHAM-CHAPEL HILL, NC	855,545	5	ND	ND	0.12	0.11	25	62	0.005	0.009
RAPID CITY, SD	81,343	ND	ND	ND	ND	ND	31	110	ND	ND
READING, PA	336,523	3	0.71 <sup>n</sup>	0.021	0.11	0.09	IN	51	0.009	0.025
REDDING, CA	147,036	ND	ND	ND	0.14	0.11	23	54	ND	ND
RENO, NV	254,667	7	ND	ND	0.09	0.08	46	125	ND	ND
RICHLAND-KENNEWICK-PASCO, WA	150,033	ND	ND	ND	ND	ND	IN	90	ND	ND
RICHMOND-PETERSBURG, VA	865,640	2	0.01	0.021	0.13	0.1	23	53	0.006	0.019
RIVERSIDE-SAN BERNARDINO, CA	2,588,793	5	0.05	0.036	0.24	0.18	50	114	0.002	0.009
ROANOKE, VA	224,477	4	ND	0.014	0.13	0.1	33	64	0.003	0.009
ROCHESTER, MN	106,470	ND	ND	ND	ND	ND	IN	36	ND	ND
ROCHESTER, NY	1,062,470	3	ND	ND	0.1	0.09	IN	50	0.01	0.054
ROCKFORD, IL	329,676	4	0.04	ND	0.09	0.07	24	52	ND	ND
ROCKY MOUNT, NC	133,235	ND	ND	ND	0.11	0.09	22	43	ND	ND
SACRAMENTO, CA	1,340,010	6	0.01	0.021	0.15	0.12	27	99	0.003	0.015
SAGINAW-BAY CITY-MIDLAND, MI	399,320	ND	ND	ND	ND	ND	ND	ND	ND	ND
ST. CLOUD, MN	190,921	4	ND	ND	ND	ND	ND	ND	ND	ND
ST. JOSEPH, MO	83,083	ND	ND	ND	ND	ND	IN	124	0.007	0.121
ST. LOUIS, MO-IL	1,836,302	6	11.6 <sup>o</sup>	0.026	0.14	0.1	46	116	0.009	0.069
SALEM, OR	278,024	5	ND	ND	0.11	0.08	ND	ND	ND	ND
SALINAS, CA	355,660	2	ND	0.01	0.09	0.07	27	50	ND	ND
SALT LAKE CITY-OGDEN, UT	1,072,227	8	0.09	0.027	0.12	0.1	33	99	0.004	0.01
SAN ANGELO, TX	98,458	ND	ND	ND	ND	ND	ND	ND	ND	ND
SAN ANTONIO, TX	1,324,749	5	ND	0.024	0.12	0.09	27*	61*	ND	ND
SAN DIEGO, CA	2,498,016	5	0.01	0.023	0.14	0.11	43	88	0.003	0.016

Table A-13. Maximum Air Quality Concentrations by Metropolitan Statistical Area, 1998 (continued)

Metropolitan Statistical Area	1990 Population	CO	Pb	NO <sub>2</sub>	O <sub>3</sub>	O <sub>3</sub>	PM <sub>10</sub>	PM <sub>10</sub>	SO <sub>2</sub>	SO <sub>2</sub>
		8-hr (ppm)	QMax (µg/m <sup>3</sup> )	AM (ppm)	1-hr (ppm)	8-hr (ppm)	Wtd AM (µg/m <sup>3</sup> )	2nd Max (µg/m <sup>3</sup> )	AM (ppm)	24-hr (ppm)
SAN FRANCISCO, CA	1,603,678	4	0.01	0.02	0.07	0.05	22	46	0.002	0.006
SAN JOSE, CA	1,497,577	6	0.01	0.025	0.14	0.09	25	60	ND	ND
SAN JUAN-BAYAMON, PR	1,836,302	6	ND	IN	0.04	0.04	36	99	0.005	0.019
SAN LUIS OBISPO-ATASCADERO-PASO ROBLE	217,162	2	ND	0.011	0.11	0.1	22	67	0.005	0.03
SANTA BARBARA-SANTA MARIA-LOMPOC, CA	369,608	4	0	0.021	0.12	0.09	25	55	0.002	0.002
SANTA CRUZ-WATSONVILLE, CA	229,734	1	ND	0.004	0.09	0.07	29	67	0.001	0.003
SANTA FE, NM	117,043	2	ND	ND	ND	ND	14	28	ND	ND
SANTA ROSA, CA	388,222	3	ND	0.015	0.1	0.09	18	38	ND	ND
SARASOTA-BRADENTON, FL	489,483	6	ND	ND	0.12	0.09	23	82	0.003	0.019
SAVANNAH, GA	258,060	ND	ND	ND	0.1	0.08	26	79	0.003	0.027
SCRANTON-WILKES-BARRE-HAZLETON, PA	638,466	3	ND	0.016	0.11	0.09	29*	54	0.006	0.026
SEATTLE-BELLEVUE-EVERETT, WA	2,033,156	6	2.03 <sup>p</sup>	0.02	0.14	0.09	15	67	0.006	0.016
SHARON, PA	121,003	ND	0.04	ND	0.12	0.11	28*	75*	0.007	0.029
SHEBOYGAN, WI	103,877	ND	ND	ND	0.13	0.1	ND	ND	ND	ND
SHERMAN-DENISON, TX	95,021	ND	ND	ND	ND	ND	ND	ND	ND	ND
SHREVEPORT-BOSSIER CITY, LA	376,330	ND	ND	ND	0.11	0.09	26*	57*	0.002	0.01
SIoux CITY, IA-NE	115,018	ND	ND	ND	ND	ND	28	56	ND	ND
SIoux FALLS, SD	139,236	ND	ND	ND	ND	ND	IN	53	ND	ND
SOUTH BEND, IN	247,052	ND	ND	0.012	0.12	0.1	24	45	ND	ND
SPOKANE, WA	361,364	7	ND	ND	0.08	0.07	26	87	ND	ND
SPRINGFIELD, IL	189,550	2	ND	ND	0.09	0.08	25	65	0.007	0.061
SPRINGFIELD, MO	264,346	4	ND	0.012	0.09	0.07	18	43	0.004	0.042
SPRINGFIELD, MA	587,884	5	ND	0.02	0.12	0.09	28	62	0.005	0.026
STAMFORD-NORWALK, CT	329,935	4	ND	ND	0.11	0.09	28	50	0.006	0.025
STATE COLLEGE, PA	123,786	ND	ND	ND	0.11	0.09	ND	ND	ND	ND
STEUBENVILLE-WEIRTON, OH-WV	142,523	13	ND	0.015	0.1	0.09	35	119	0.016	0.067
STOCKTON-LODI, CA	480,628	5	0	0.023	0.12	0.09	29	95	ND	ND
SUMTER, SC	102,637	ND	0.01	ND	ND	ND	ND	ND	ND	ND
SYRACUSE, NY	742,177	3	ND	ND	0.09	0.08	27	62	0.002	0.011
TACOMA, WA	586,203	6	ND	ND	0.13	0.09	18	62	0.006	0.02
TALLAHASSEE, FL	233,598	ND	ND	ND	0.09	0.08	IN	63	ND	ND
TAMPA-ST. PETERSBURG-CLEARWATER, FL	2,067,959	4	0.51 <sup>a</sup>	0.012	0.13	0.1	32	105	0.008	0.048
TERRE HAUTE, IN	147,585	ND	0.02	ND	0.1	0.08	28	52	0.01	0.032
TEXARKANA, TX-TEXARKANA, AR	120,132	ND	ND	ND	ND	ND	23*	53*	IN	IN
TOLEDO, OH	614,128	2	0.35	ND	0.11	0.09	IN	51	0.004	0.021
TOPEKA, KS	160,976	ND	ND	ND	ND	ND	IN	67	ND	ND
TRENTON, NJ	325,824	ND	ND	0.015	0.11	0.1	ND	ND	ND	ND
TUSCON, AZ	666,880	4	ND	0.017	0.09	0.08	39	78	0.002	0.004
TULSA, OK	708,954	5	ND	0.015	0.12	0.09	25*	56*	0.019	0.059
TUSCALOOSA, AL	150,522	ND	ND	ND	ND	ND	28	53	ND	ND
TYLER, TX	151,309	ND	ND	ND	0.11	0.09	ND	ND	ND	ND
UTICA-ROME, NY	316,633	ND	ND	ND	0.09	0.08	13	45	0.001	0.005
VALLEJO-FAIRFIELD-NAPA, CA	451,186	5	ND	0.014	0.13	0.1	17	46	0.002	0.005
VENTURA, CA	669,016	3	0	0.019	0.14	0.11	24	52	0.003	0.011
VICTORIA, TX	74,361	ND	ND	ND	0.1	0.08	ND	ND	ND	ND
VINELAND-MILLVILLE-BRIDGETON, NJ	138,053	ND	ND	ND	0.12	0.1	ND	ND	0.004	0.012
VISALIA-TULARE-PORTERVILLE, CA	311,921	4	ND	0.017	0.14	0.11	40	123	ND	ND
WACO, TX	189,123	ND	ND	ND	ND	ND	ND	ND	ND	ND
WASHINGTON, DC-MD-VA-WV	4,223,485	5	0.03 <sup>f</sup>	0.027	0.13	0.11	28	57	0.01	0.025
WATERBURY, CT	221,629	ND	0.02	ND	ND	ND	21	60	0.006	0.021
WATERLOO-CEDAR FALLS, IA	123,798	ND	ND	ND	ND	ND	IN	52	ND	ND
WAUSAU, WI	115,400	ND	ND	ND	0.1	0.08	24	57	0.003	0.031
WEST PALM BEACH-BOCA RATON, FL	863,518	3	0	0.012	0.11	0.08	22	52	0.001	0.004
WHEELING, WV-OH	159,301	4	ND	ND	0.1	0.09	25	56	0.015	0.061

**Table A-13.** Maximum Air Quality Concentrations by Metropolitan Statistical Area, 1998 (continued)

Metropolitan Statistical Area	1990 Population	CO 8-hr (ppm)	Pb QMax (µg/m <sup>3</sup> )	NO <sub>2</sub> AM (ppm)	O <sub>3</sub> 1-hr (ppm)	O <sub>3</sub> 8-hr (ppm)	PM <sub>10</sub> Wtd AM (µg/m <sup>3</sup> )	PM <sub>10</sub> 2nd Max (µg/m <sup>3</sup> )	SO <sub>2</sub> AM (ppm)	SO <sub>2</sub> 24-hr (ppm)
WICHITA, KS	485,270	6	0.01	ND	0.1	0.08	26	75	ND	ND
WICHITA FALLS, TX	130,351	ND	ND	ND	ND	ND	ND	ND	ND	ND
WILLIAMSPORT, PA	118,710	ND	ND	ND	0.1	0.08	24*	ND	0.005	0.021
WILMINGTON-NEWARK, DE-MD	513,293	3	ND	0.016	0.13	0.1	28*	76	0.008	0.044
WILMINGTON, NC	171,269	IN	ND	ND	0.1	0.09	IN	40	0.007	0.026
WORCESTER, MA-CT	478,384	4	ND	0.019	0.12	0.1	20	50	0.005	0.017
YAKIMA, WA	188,823	5	ND	ND	ND	ND	26	81	ND	ND
YOLO, CA	141,092	1	ND	0.011	0.11	0.09	27	73	ND	ND
YORK, PA	339,574	2	0.05	0.019	0.11	0.1	29*	60	0.008	0.023
YOUNGSTOWN-WARREN, OH	600,859	ND	ND	0.015	0.12	0.1	39	88	0.009	0.049
YUBA CITY, CA	122,643	4	ND	0.013	0.1	0.09	23	54	ND	ND
YUMA, AZ	106,895	ND	ND	ND	0.1	0.09	ND	ND	ND	ND

- CO – Highest second maximum non-overlapping 8-hour concentration (*Applicable NAAQS is 9 ppm*)
- Pb – Highest quarterly maximum concentration (*Applicable NAAQS is 1.5 µg/m<sup>3</sup>*)
- NO<sub>2</sub> – Highest arithmetic mean concentration (*Applicable NAAQS is 0.053 ppm*)
- O<sub>3</sub> (1-hr) – Highest second daily maximum 1-hour concentration (*Applicable NAAQS is 0.12 ppm*)
- O<sub>3</sub> (8-hr) – Highest fourth daily maximum 8-hour concentration (*Applicable NAAQS is 0.08 ppm*)
- PM<sub>10</sub> – Highest weighted annual mean concentration (*Applicable NAAQS is 50 µg/m<sup>3</sup>*)
- Highest second maximum 24-hour concentration (*Applicable NAAQS is 150 µg/m<sup>3</sup>*)
- SO<sub>2</sub> – Highest annual mean concentration (*Applicable NAAQS is 0.03 ppm*)
- Highest second maximum 24-hour concentration (*Applicable NAAQS is 0.14 ppm*)
- ND – Indicates data not available
- IN – Indicates insufficient data to calculate summary statistic
- Wtd – Weighted
- AM – Annual mean
- µg/m<sup>3</sup> – Units are micrograms per cubic meter
- PPM – Units are parts per million

Data from exceptional events not included.

- (\*) – These PM<sub>10</sub> statistics were converted from local temperature and pressure to standard temperature and pressure to ensure all PM<sub>10</sub> data in this table reflect standard conditions.
- (a) – Localized impact from an industrial source in Cleveland, OH. Highest population-oriented site in MSA is in Cleveland, OH (0.05 µg/m<sup>3</sup>).
- (b) – Localized impact from an industrial source in Columbus, GA.
- (c) – Localized impact from an industrial source in Columbus, OH. Highest population-oriented site in MSA is in Columbus, OH (0.01 µg/m<sup>3</sup>).
- (d) – Localized impact from an industrial source in Frisco, TX. Highest population-oriented site in MSA is in Midlothian, TX (0.30 µg/m<sup>3</sup>).
- (e) – Localized impact from an industrial source in Indianapolis, IN.
- (f) – Localized impact from an industrial source in Memphis, TN. Highest population-oriented site in MSA is in Memphis, TN (0.03 µg/m<sup>3</sup>).
- (g) – Localized impact from an industrial source in New Brunswick, NJ.
- (h) – Localized impact from an industrial source in Eagan, MN. Highest population-oriented site in MSA is in Richfield, MN (0.02 µg/m<sup>3</sup>).
- (i) – Localized impact from an industrial source in Muncie, IN.
- (j) – Localized impact from an industrial source in Williamson Co., TN.
- (k) – Localized impact from an industrial source in Middletown, NY. Highest population-oriented site in MSA is in Middletown, NY (0.03 µg/m<sup>3</sup>).
- (l) – Localized impact from an industrial source in Omaha, NE.
- (m) – Localized impact from an industrial source in Philadelphia, PA. Highest population-oriented site in MSA is in Philadelphia, PA (0.38 µg/m<sup>3</sup>).
- (n) – Localized impact from an industrial source in Berks Co., PA.
- (o) – Localized impact from an industrial source in Herculaneum, MO. Highest population-oriented site in MSA is in Wood River, IL (0.14 µg/m<sup>3</sup>).
- (p) – Localized impact from an industrial source in Seattle, WA. This facility has been shut down.
- (q) – Localized impact from an industrial source in Tampa, FL. Highest population-oriented site in MSA is in Tampa, FL (0.23 µg/m<sup>3</sup>).
- (r) – Localized impact from an industrial source in Lorton, VA. Highest population-oriented site in MSA is in Washington, DC (0.02 µg/m<sup>3</sup>).

**Note:** The reader is cautioned that this summary is not adequate in itself to numerically rank MSAs according to their air quality. The monitoring data represent the quality of air in the vicinity of the monitoring site but may not necessarily represent urban-wide air quality.

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998

Metropolitan Statistical Area	Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
<b>AKRON, OH</b>													
CO	2ND MAX 8-HOUR	DOWN	1	5.2	5.7	3.3	4.1	3.1	5.3	3.3	3.4	3.2	2.6
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.10	0.04	0.06	0.05	0.06	0.06	0.03	0.04	0.04	0.02
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.10	0.10	0.09	0.10	0.09	0.09	0.09	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	2	0.13	0.11	0.12	0.11	0.11	0.10	0.12	0.11	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	34	26	28	27	25	28	26	25	24	24
	90TH PERCENTILE	DOWN	1	52	49	51	44	49	51	48	35	39	39
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.015	0.015	0.015	0.013	0.015	0.012	0.009	0.010	0.012	0.010
	2ND MAX 24-HOUR	NS	1	0.053	0.061	0.051	0.064	0.056	0.042	0.046	0.042	0.072	0.044
<b>ALBANY-SCHENECTADY-TROY, NY</b>													
CO	2ND MAX 8-HOUR	DOWN	1	5.7	6.2	5.4	4.7	3.8	5.2	4.3	3.7	4.5	4.4
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.04	0.13	0.04	0.03	0.03	0.04	0.04	0.03	0.03	0.03
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.08	0.08	0.08	0.08	0.09	0.08	0.08	0.08	0.07	0.08
	2ND DAILY MAX 1-HOUR	NS	3	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	5	21	21	21	21	20	21	18	19	20	20
	90TH PERCENTILE	NS	5	36	36	36	34	34	40	32	29	32	36
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.005	0.006	0.007	0.006	0.006	0.006	0.005	0.005	0.004	0.003
	2ND MAX 24-HOUR	DOWN	1	0.022	0.028	0.030	0.022	0.026	0.027	0.016	0.021	0.017	0.013
<b>ALBUQUERQUE, NM</b>													
CO	2ND MAX 8-HOUR	DOWN	6	6.6	6.1	5.5	5.0	5.1	4.9	5.0	4.3	3.7	3.7
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.019	0.018	0.004	0.021	0.024	0.023	0.018	0.022	0.019	0.016
O <sub>3</sub>	4TH MAX 8-HOUR	NS	7	0.07	0.07	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	7	0.09	0.09	0.08	0.09	0.08	0.08	0.08	0.08	0.08	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	8	33	24	22	23	23	22	24	24	21	21
	90TH PERCENTILE	DOWN	8	52	39	37	34	36	36	39	38	33	32
<b>ALEXANDRIA, LA</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	23	23	22	25	21	23	21	19	23	23
	90TH PERCENTILE	DOWN	1	38	38	37	40	36	38	37	27	32	32
<b>ALLENTOWN-BETHLEHEM-EASTON, PA</b>													
CO	2ND MAX 8-HOUR	DOWN	2	4.8	5.3	5.3	3.8	3.6	6.6	4.7	3.2	2.9	3.0
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.78	0.40	0.46	0.28	0.18	0.13	0.07	0.08	0.09	0.12
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.020	0.017	0.018	0.018	0.020	0.021	0.018	0.018	0.016	0.016
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.09	0.09	0.09	0.10	0.08	0.08	0.08	0.10	0.09	0.10
	2ND DAILY MAX 1-HOUR	NS	3	0.10	0.11	0.12	0.10	0.11	0.11	0.11	0.11	0.11	0.11
SO <sub>2</sub>	ARITHMETIC MEAN	NS	3	0.009	0.009	0.008	0.007	0.007	0.009	0.007	0.007	0.009	0.010
	2ND MAX 24-HOUR	NS	3	0.040	0.039	0.036	0.031	0.028	0.045	0.027	0.030	0.030	0.032
<b>ALTOONA, PA</b>													
CO	2ND MAX 8-HOUR	NS	1	1.7	1.7	1.7	2.8	2.0	2.4	1.7	1.9	1.5	1.2
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.015	0.015	0.015	0.014	0.015	0.015	0.013	0.013	0.014	0.013
O <sub>3</sub>	4TH MAX 8-HOUR	UP	1	0.07	0.07	0.08	0.09	0.08	0.09	0.09	0.09	0.08	0.10
	2ND DAILY MAX 1-HOUR	UP	1	0.10	0.10	0.11	0.10	0.10	0.11	0.11	0.10	0.11	0.11
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.011	0.011	0.011	0.009	0.009	0.010	0.008	0.008	0.010	0.008
	2ND MAX 24-HOUR	DOWN	1	0.059	0.062	0.044	0.046	0.052	0.058	0.037	0.033	0.046	0.032
<b>ANCHORAGE, AK</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	26	31	30	31	28	27	26	25	25	20
	90TH PERCENTILE	NS	3	47	63	57	61	55	50	51	48	51	37
<b>ANN ARBOR, MI</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.08	0.09	0.08	0.08	0.08	0.08	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.09	0.11	0.10	0.10	0.09	0.11	0.10	0.10	0.10
<b>ANNISTON, AL</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	28	28	29	25	25	24	23	19	23	26
	90TH PERCENTILE	NS	1	46	46	46	37	38	40	40	27	42	41
<b>ASHEVILLE, NC</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.07	0.07	0.07	0.06	0.06	0.07	0.07	0.08	0.07	0.08
	2ND DAILY MAX 1-HOUR	UP	1	0.08	0.09	0.08	0.08	0.08	0.08	0.09	0.08	0.09	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	29	25	24	23	22	19	18	19	21	20
	90TH PERCENTILE	DOWN	1	47	41	41	40	43	30	28	29	38	36
<b>ATLANTA, GA</b>													
CO	2ND MAX 8-HOUR	DOWN	1	6.2	5.4	6.5	5.1	4.9	5.3	4.5	3.7	4.3	4.1
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.04	0.03	0.04	0.03	0.02	0.03	0.05	0.03	0.02	0.02
NO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.023	0.021	0.020	0.020	0.020	0.018	0.017	0.021	0.020	0.019
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.09	0.09	0.12	0.09	0.09	0.11	0.10	0.11	0.10	0.10
	2ND DAILY MAX 1-HOUR	NS	2	0.12	0.14	0.12	0.13	0.14	0.12	0.14	0.13	0.13	0.14
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	33	39	32	28	29	27	28	27	28	28
	90TH PERCENTILE	NS	3	52	68	53	46	47	43	45	41	49	50
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.007	0.007	0.006	0.006	0.006	0.004	0.004	0.004	0.004	0.004
	2ND MAX 24-HOUR	DOWN	2	0.043	0.026	0.032	0.028	0.036	0.023	0.018	0.018	0.023	0.017
<b>ATLANTIC-CAPE MAY, NJ</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.10	0.10	0.11	0.11	0.09	0.09	0.08	0.10	0.10	0.11
	2ND DAILY MAX 1-HOUR	NS	1	0.12	0.16	0.14	0.12	0.12	0.10	0.12	0.11	0.13	0.12
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.005	0.004	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003
	2ND MAX 24-HOUR	NS	1	0.029	0.012	0.011	0.016	0.014	0.019	0.011	0.014	0.011	0.010

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area	Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>AUGUSTA-AIKEN, GA-SC</b>												
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.08	0.08	0.09	0.07	0.07	0.08	0.08	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	3	0.10	0.10	0.10	0.09	0.10	0.09	0.10	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	21	22	23	22	22	21	19	19	22
	90TH PERCENTILE	NS	1	39	36	35	32	35	35	29	29	31
<b>AUSTIN-SAN MARCOS, TX</b>												
CO	2ND MAX 8-HOUR	NS	1	4.2	5.9	3.4	3.7	3.0	5.8	3.5	3.2	3.2
NO <sub>2</sub>	ARITHMETIC MEAN	UP	1	0.017	0.017	0.016	0.017	0.017	0.018	0.021	0.018	0.018
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.11	0.11	0.10	0.09	0.09	0.10	0.11	0.10	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	25	21	24	23	19	20	22	19	19
	90TH PERCENTILE	DOWN	2	37	34	35	34	35	34	35	26	26
<b>BAKERSFIELD, CA</b>												
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.017	0.017	0.017	0.016	0.015	0.015	0.013	0.013	0.013
O <sub>3</sub>	4TH MAX 8-HOUR	NS	5	0.11	0.11	0.10	0.11	0.10	0.11	0.10	0.11	0.10
	2ND DAILY MAX 1-HOUR	NS	5	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.14	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	4	46	47	54	38	33	30	33	28	25
	90TH PERCENTILE	DOWN	4	83	89	91	62	60	47	62	47	45
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.004	0.004	0.002	0.003	0.002	0.003	0.003	0.003	0.003
	2ND MAX 24-HOUR	DOWN	1	0.014	0.011	0.010	0.010	0.010	0.007	0.008	0.009	0.009
<b>BALTIMORE, MD</b>												
CO	2ND MAX 8-HOUR	DOWN	3	6.5	7.1	6.4	5.5	5.4	5.8	4.7	3.6	4.6
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.11	0.06	0.04	0.04	0.04	0.03	0.03	0.03	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.035	0.034	0.033	0.031	0.033	0.032	0.026	0.027	0.026
O <sub>3</sub>	4TH MAX 8-HOUR	NS	7	0.09	0.09	0.10	0.11	0.09	0.11	0.10	0.10	0.09
	2ND DAILY MAX 1-HOUR	NS	7	0.12	0.13	0.14	0.12	0.13	0.13	0.14	0.12	0.14
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	5	36	33	36	30	29	30	29	27	28
	90TH PERCENTILE	DOWN	5	60	52	58	47	51	53	48	43	46
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.012	0.008	0.009	0.009	0.008	0.009	0.006	0.007	0.008
	2ND MAX 24-HOUR	DOWN	2	0.042	0.030	0.030	0.027	0.026	0.030	0.022	0.026	0.025
<b>BANGOR, ME</b>												
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	26	21	25	22	22	22	20	19	18
	90TH PERCENTILE	NS	1	42	33	41	32	34	35	32	27	34
<b>BATON ROUGE, LA</b>												
LEAD	MAX QUARTERLY MEAN	NS	3	0.08	0.05	0.03	0.10	0.03	0.04	0.05	0.03	0.04
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.015	0.014	0.015	0.016	0.012	0.016	0.016	0.015	0.013
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.09	0.09	0.11	0.09	0.08	0.08	0.08	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	3	0.14	0.15	0.13	0.11	0.11	0.12	0.12	0.11	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	2	28	28	28	27	22	26	24	24	27
	90TH PERCENTILE	NS	2	44	43	49	37	35	41	38	35	44
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.007	0.005	0.009	0.008	0.006	0.008	0.006	0.006	0.007
	2ND MAX 24-HOUR	NS	1	0.056	0.022	0.036	0.033	0.021	0.025	0.034	0.024	0.027
<b>BEAUMONT-PORT ARTHUR, TX</b>												
CO	2ND MAX 8-HOUR	NS	1	2.0	2.3	2.3	2.4	3.3	2.0	1.7	2.1	2.1
LEAD	MAX QUARTERLY MEAN	NS	1	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02
NO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.010	0.009	0.010	0.011	0.009	0.010	0.010	0.010	0.008
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.09	0.09	0.09	0.10	0.09	0.09	0.08	0.10	0.08
	2ND DAILY MAX 1-HOUR	NS	3	0.13	0.12	0.13	0.13	0.12	0.11	0.13	0.12	0.14
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.008	0.009	0.008	0.006	0.006	0.006	0.005	0.005	0.006
	2ND MAX 24-HOUR	DOWN	2	0.088	0.042	0.059	0.044	0.047	0.039	0.025	0.041	0.037
<b>BELLINGHAM, WA</b>												
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.06
	2ND DAILY MAX 1-HOUR	NS	1	0.08	0.08	0.07	0.07	0.08	0.08	0.08	0.08	0.07
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.006	0.007	0.006	0.007	0.006	0.007	0.006	0.005	0.005
	2ND MAX 24-HOUR	DOWN	1	0.018	0.028	0.021	0.022	0.017	0.019	0.018	0.013	0.012
<b>BERGEN-PASSAIC, NJ</b>												
CO	2ND MAX 8-HOUR	DOWN	2	7.5	6.8	6.6	4.5	5.2	6.2	4.9	3.8	4.9
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.035	0.031	0.031	0.030	0.029	0.031	0.029	0.028	0.028
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.10	0.10	0.10	0.10	0.08	0.08	0.09	0.10	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.12	0.13	0.14	0.10	0.11	0.11	0.12	0.11	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	35	37	39	33	31	35	31	31	31
	90TH PERCENTILE	DOWN	3	61	59	62	50	51	57	49	48	49
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.011	0.010	0.010	0.009	0.008	0.007	0.005	0.006	0.005
	2ND MAX 24-HOUR	DOWN	2	0.045	0.041	0.035	0.040	0.026	0.037	0.027	0.022	0.021
<b>BILLINGS, MT</b>												
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.018	0.016	0.016	0.020	0.021	0.015	0.013	0.009	0.007
	2ND MAX 24-HOUR	DOWN	4	0.078	0.066	0.069	0.081	0.104	0.066	0.059	0.056	0.032
<b>BILOXI-GULFPORT-PASCAGOULA, MS</b>												
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.08	0.08	0.09	0.08	0.09	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.12	0.12	0.12	0.11	0.10	0.12	0.11	0.10	0.09
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.006	0.007	0.006	0.006	0.004	0.003	0.003	0.003	0.002
	2ND MAX 24-HOUR	NS	1	0.029	0.037	0.034	0.020	0.029	0.022	0.024	0.043	0.025

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area	Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
<b>BIRMINGHAM, AL</b>													
CO	2ND MAX 8-HOUR	DOWN	3	7.5	6.9	7.1	6.9	6.9	6.6	6.3	5.3	5.8	4.7
LEAD	MAX QUARTERLY MEAN	NS	1	0.13	0.14	0.09	0.08	0.07	0.07	0.09	0.13	0.13	0.13
O <sub>3</sub>	4TH MAX 8-HOUR	NS	6	0.08	0.08	0.09	0.08	0.08	0.08	0.08	0.10	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	6	0.10	0.12	0.10	0.11	0.11	0.10	0.12	0.13	0.11	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	6	31	35	32	29	27	25	26	25	26	27
	90TH PERCENTILE	DOWN	6	50	57	54	45	42	38	42	38	45	40
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.008	0.008	0.007	0.007	0.009	0.007	0.006	0.004	0.006	0.007
	2ND MAX 24-HOUR	NS	1	0.025	0.025	0.020	0.027	0.050	0.037	0.016	0.015	0.018	0.032
<b>BOISE CITY, ID</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	42	29	35	34	37	35	30	28	29	23
	90TH PERCENTILE	DOWN	3	85	55	74	58	64	63	50	49	46	39
<b>BOSTON, MA-NH</b>													
CO	2ND MAX 8-HOUR	DOWN	4	5.0	5.6	4.1	4.7	4.0	4.9	3.6	3.6	3.8	2.9
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	3	0.031	0.029	0.031	0.029	0.030	0.030	0.027	0.028	0.026	0.027
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	4	0.09	0.09	0.08	0.09	0.09	0.09	0.08	0.09	0.07	0.08
	2ND DAILY MAX 1-HOUR	DOWN	4	0.12	0.10	0.13	0.11	0.11	0.11	0.11	0.09	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	7	26	25	24	22	22	23	21	23	21	24
	90TH PERCENTILE	NS	7	41	40	39	35	35	38	34	39	33	41
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	11	0.010	0.009	0.009	0.009	0.009	0.008	0.006	0.006	0.006	0.006
	2ND MAX 24-HOUR	DOWN	11	0.041	0.038	0.030	0.037	0.032	0.032	0.023	0.025	0.029	0.023
<b>BOULDER-LONGMONT, CO</b>													
CO	2ND MAX 8-HOUR	DOWN	2	6.6	5.7	5.7	5.9	5.3	4.5	4.2	4.0	4.4	3.4
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	1	0.08	0.08	0.07	0.08	0.07	0.07	0.07	0.07	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	1	0.11	0.10	0.10	0.09	0.10	0.09	0.10	0.09	0.09	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	29	23	23	23	24	19	16	17	17	17
	90TH PERCENTILE	DOWN	2	51	39	44	35	44	29	27	27	24	26
<b>BRAZORIA, TX</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	1	0.10	0.10	0.10	0.09	0.10	0.09	0.09	0.11	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.15	0.15	0.13	0.13	0.13	0.11	0.15	0.11	0.14	0.11
<b>BRIDGEPORT, CT</b>													
CO	2ND MAX 8-HOUR	DOWN	1	5.2	5.0	5.5	4.7	3.7	5.8	4.9	3.0	4.0	2.8
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.026	0.026	0.025	0.024	0.024	0.026	0.024	0.024	0.023	0.023
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	2	0.11	0.11	0.10	0.11	0.08	0.10	0.09	0.10	0.09	0.10
	2ND DAILY MAX 1-HOUR	NS	2	0.16	0.15	0.15	0.12	0.16	0.15	0.13	0.11	0.13	0.13
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	27	25	28	22	21	26	22	21	21	21
	90TH PERCENTILE	DOWN	1	47	41	49	37	43	44	37	32	34	33
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.014	0.013	0.012	0.011	0.010	0.010	0.007	0.006	0.007	0.007
	2ND MAX 24-HOUR	DOWN	1	0.051	0.050	0.044	0.040	0.035	0.049	0.028	0.023	0.031	0.024
<b>BROCKTON, MA</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.09	0.10	0.09	0.09	0.10	0.10	0.08	0.08
	2ND DAILY MAX 1-HOUR	DOWN	1	0.13	0.12	0.15	0.11	0.11	0.12	0.13	0.10	0.10	0.10
<b>BROWNSVILLE-HARLINGEN-SAN BENITO, TX</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	22	22	24	24	22	23	21	19	21	21
	90TH PERCENTILE	NS	1	36	36	36	36	45	36	35	28	36	36
<b>BUFFALO-NIAGARA FALLS, NY</b>													
CO	2ND MAX 8-HOUR	DOWN	3	4.4	3.4	3.1	4.6	3.4	3.2	2.6	2.9	2.2	2.2
LEAD	MAX QUARTERLY MEAN	NS	1	0.04	0.03	0.03	0.03	0.05	0.05	0.03	0.03	0.04	0.04
NO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.022	0.020	0.018	0.018	0.017	0.019	0.019	0.019	0.018	0.017
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.09	0.09	0.08	0.08	0.08	0.09	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.10	0.11	0.11	0.11	0.09	0.09	0.10	0.10	0.09	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	12	25	19	25	21	19	19	18	19	19	20
	90TH PERCENTILE	NS	12	47	35	48	33	35	34	34	29	34	39
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.012	0.011	0.012	0.011	0.010	0.010	0.008	0.007	0.007	0.007
	2ND MAX 24-HOUR	DOWN	4	0.051	0.054	0.062	0.058	0.042	0.039	0.040	0.034	0.040	0.029
<b>BURLINGTON, VT</b>													
CO	2ND MAX 8-HOUR	DOWN	1	3.7	4.6	3.8	3.9	3.9	3.9	2.5	3.3	2.0	2.4
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.019	0.018	0.017	0.016	0.017	0.017	0.017	0.017	0.017	0.018
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	25	24	23	23	21	21	20	20	20	21
	90TH PERCENTILE	DOWN	2	38	38	37	39	36	35	35	29	30	30
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.007	0.008	0.008	0.003	0.003	0.003	0.002	0.002	0.002	0.002
	2ND MAX 24-HOUR	DOWN	1	0.031	0.021	0.022	0.013	0.011	0.013	0.006	0.014	0.012	0.008
<b>CANTON-MASSILLON, OH</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.09	0.09	0.09	0.10	0.08	0.09	0.08	0.09	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.11	0.10	0.11	0.09	0.10	0.10	0.10	0.10	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	35	30	31	28	26	28	29	25	26	25
	90TH PERCENTILE	DOWN	2	64	52	50	45	45	50	52	36	44	43
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.012	0.011	0.010	0.010	0.010	0.009	0.006	0.006	0.007	0.007
	2ND MAX 24-HOUR	NS	1	0.041	0.036	0.037	0.040	0.046	0.052	0.033	0.032	0.025	0.029

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area		Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>CEDAR RAPIDS, IA</b>													
CO	2ND MAX 8-HOUR	NS	1	3.5	3.5	4.1	4.9	3.2	4.2	2.6	7.8	2.4	2.5
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.07	0.07	0.05	0.07	0.07	0.06	0.06	0.07	0.06	0.06
	2ND DAILY MAX 1-HOUR	NS	1	0.08	0.07	0.08	0.08	0.07	0.07	0.08	0.07	0.07	0.07
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	3	33	28	29	27	22	23	23	23	23	24
	90TH PERCENTILE	NS	3	55	43	45	45	35	34	39	35	38	37
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	3	0.006	0.005	0.005	0.005	0.004	0.004	0.003	0.002	0.003	0.003
	2ND MAX 24-HOUR	DOWN	3	0.044	0.037	0.033	0.034	0.023	0.027	0.021	0.013	0.014	0.013
<b>CHAMPAIGN-URBANA, IL</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.08	0.07	0.07	0.07	0.08	0.08	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.09	0.09	0.08	0.09	0.07	0.09	0.10	0.09	0.09	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	32	28	30	31	22	25	22	19	23	24
	90TH PERCENTILE	DOWN	1	56	46	47	47	41	44	44	31	35	39
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.005	0.004	0.005	0.004	0.004	0.004	0.003	0.003	0.004	0.003
	2ND MAX 24-HOUR	NS	1	0.025	0.030	0.038	0.018	0.015	0.024	0.011	0.013	0.018	0.019
<b>CHARLESTON-NORTH CHARLESTON, SC</b>													
CO	2ND MAX 8-HOUR	NS	1	5.9	4.7	4.9	5.2	5.8	4.0	6.4	4.7	3.9	2.9
LEAD	MAX QUARTERLY MEAN	NS	1	0.02	0.03	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.03
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.008	0.008	0.008	0.008	0.008	0.007	0.007	0.007	0.007	0.007
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.08	0.08	0.07	0.07	0.07	0.08	0.07	0.07	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	3	0.09	0.09	0.09	0.09	0.10	0.09	0.09	0.10	0.09	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	29	28	25	23	21	20	19	19	19	21
	90TH PERCENTILE	DOWN	3	45	46	40	34	35	32	28	29	29	37
SO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.003	0.002	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.002
	2ND MAX 24-HOUR	DOWN	2	0.024	0.016	0.017	0.021	0.014	0.021	0.012	0.014	0.014	0.010
<b>CHARLESTON, WV</b>													
CO	2ND MAX 8-HOUR	NS	1	2.9	2.8	3.1	3.3	2.2	3.5	2.4	2.3	1.9	2.0
LEAD	MAX QUARTERLY MEAN	DOWN	3	0.02	0.04	0.02	0.03	0.02	0.03	0.02	0.02	0.01	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.021	0.020	0.020	0.017	0.018	0.019	0.020	0.020	0.020	0.022
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.07	0.07	0.08	0.09	0.06	0.06	0.08	0.09	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.12	0.12	0.07	0.08	0.10	0.11	0.10	0.10	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	35	36	29	28	29	28	26	24	21	21
	90TH PERCENTILE	DOWN	1	62	58	47	44	52	49	40	41	32	35
SO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.014	0.012	0.009	0.009	0.009	0.010	0.007	0.008	0.009	0.009
	2ND MAX 24-HOUR	DOWN	2	0.062	0.056	0.036	0.031	0.034	0.037	0.023	0.031	0.031	0.031
<b>CHARLOTTE-GASTONIA-ROCK HILL, NC-SC</b>													
CO	2ND MAX 8-HOUR	DOWN	5	7.0	7.1	6.3	6.0	5.6	5.8	4.7	4.4	4.8	4.2
LEAD	MAX QUARTERLY MEAN	NS	1	0.03	0.04	0.01	0.08	0.02	0.03	0.01	0.01	0.01	0.02
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.017	0.017	0.016	0.016	0.017	0.016	0.016	0.016	0.018	0.018
O <sub>3</sub>	4TH MAX 8-HOUR	UP	3	0.09	0.09	0.10	0.09	0.09	0.10	0.09	0.09	0.10	0.10
	2ND DAILY MAX 1-HOUR	NS	3	0.12	0.12	0.12	0.10	0.13	0.11	0.11	0.13	0.12	0.13
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	33	33	31	30	28	29	28	30	28	30
	90TH PERCENTILE	NS	3	50	50	50	48	41	44	42	44	43	49
<b>CHARLOTTESVILLE, VA</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	30	27	28	22	24	22	23	21	21	23
	90TH PERCENTILE	NS	1	50	44	47	32	40	33	41	35	36	33
<b>CHATTANOOGA, TN-GA</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.09	0.08	0.08	0.09	0.09	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	2	0.10	0.12	0.10	0.09	0.10	0.11	0.11	0.11	0.11	0.13
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	36	38	38	34	32	33	32	32	27	28
	90TH PERCENTILE	DOWN	2	57	61	63	52	52	51	49	53	45	45
<b>CHEYENNE, WY</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	19	19	19	17	16	18	15	15	13	14
	90TH PERCENTILE	DOWN	1	30	30	30	25	24	28	26	25	20	22
<b>CHICAGO, IL</b>													
CO	2ND MAX 8-HOUR	NS	7	4.5	5.0	4.2	4.5	4.6	6.4	3.5	3.2	3.3	3.4
LEAD	MAX QUARTERLY MEAN	DOWN	9	0.09	0.07	0.06	0.07	0.06	0.05	0.05	0.04	0.04	0.04
NO <sub>2</sub>	ARITHMETIC MEAN	NS	5	0.026	0.022	0.021	0.026	0.026	0.029	0.029	0.029	0.029	0.028
O <sub>3</sub>	4TH MAX 8-HOUR	NS	17	0.08	0.08	0.07	0.09	0.08	0.07	0.08	0.09	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	17	0.10	0.09	0.11	0.10	0.09	0.10	0.12	0.10	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	13	37	35	33	33	31	35	32	30	30	33
	90TH PERCENTILE	DOWN	13	61	60	51	54	51	56	55	45	46	50
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	10	0.008	0.007	0.008	0.006	0.006	0.006	0.005	0.005	0.005	0.005
	2ND MAX 24-HOUR	DOWN	10	0.039	0.037	0.040	0.028	0.031	0.033	0.023	0.021	0.023	0.024
<b>CHICO-PARADISE, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	2	6.4	6.2	7.4	5.9	4.7	4.6	4.1	4.4	4.0	4.2
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.016	0.015	0.016	0.016	0.016	0.015	0.014	0.013	0.013	0.013
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	1	0.08	0.08	0.08	0.07	0.08	0.08	0.08	0.08	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.12	0.09	0.09	0.09	0.10	0.09	0.10	0.07	0.10

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area	Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
<b>CINCINNATI, OH-KY-IN</b>													
CO	2ND MAX 8-HOUR	DOWN	3	4.9	4.2	4.2	4.5	4.7	4.3	3.4	2.9	2.7	3.2
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.07	0.04	0.04	0.04	0.05	0.04	0.06	0.04	0.03	0.03
NO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.024	0.022	0.022	0.021	0.022	0.022	0.021	0.022	0.023	0.022
O <sub>3</sub>	4TH MAX 8-HOUR	NS	7	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	7	0.11	0.11	0.12	0.09	0.10	0.11	0.12	0.11	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	7	41	36	32	30	31	30	31	28	29	28
	90TH PERCENTILE	DOWN	7	69	64	57	49	58	51	54	42	49	47
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.012	0.012	0.012	0.011	0.011	0.009	0.006	0.009	0.009	0.009
	2ND MAX 24-HOUR	DOWN	4	0.046	0.054	0.044	0.045	0.044	0.044	0.025	0.035	0.037	0.038
<b>CLARKSVILLE-HOPKINSVILLE, TN-KY</b>													
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.007	0.007	0.006	0.009	0.010	0.007	0.006	0.006	0.005	0.006
	2ND MAX 24-HOUR	DOWN	1	0.042	0.038	0.029	0.036	0.058	0.037	0.019	0.023	0.026	0.020
<b>CLEVELAND-LORAIN-ELYRIA, OH</b>													
CO	2ND MAX 8-HOUR	DOWN	2	5.9	4.7	4.7	5.1	4.3	5.3	5.7	3.7	3.5	3.2
LEAD	MAX QUARTERLY MEAN	DOWN	4	0.19	0.32	0.18	0.21	0.21	0.14	0.11	0.06	0.05	0.05
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.025	0.022	0.022	0.021	0.022	0.021	0.021	0.020	0.020	0.020
O <sub>3</sub>	4TH MAX 8-HOUR	NS	6	0.09	0.09	0.08	0.09	0.08	0.09	0.08	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	6	0.10	0.11	0.11	0.10	0.11	0.11	0.11	0.11	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	11	37	33	35	30	29	35	32	30	30	31
	90TH PERCENTILE	DOWN	11	60	56	59	50	54	58	55	46	47	49
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	9	0.012	0.010	0.010	0.009	0.008	0.008	0.006	0.006	0.006	0.006
	2ND MAX 24-HOUR	DOWN	9	0.042	0.041	0.039	0.038	0.039	0.040	0.023	0.030	0.029	0.027
<b>COLORADO SPRINGS, CO</b>													
CO	2ND MAX 8-HOUR	DOWN	4	6.0	5.2	4.8	4.4	4.1	3.6	4.1	3.6	3.8	3.1
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	NS	3	0.015	0.016	0.016	0.016	0.015	0.017	0.017	0.016	0.015	0.015
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	1	0.07	0.07	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.05
	2ND DAILY MAX 1-HOUR	DOWN	1	0.08	0.07	0.08	0.07	0.06	0.07	0.07	0.07	0.06	0.06
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	12	27	22	25	22	22	21	19	20	19	20
	90TH PERCENTILE	DOWN	12	43	35	40	33	36	36	32	31	29	32
SO <sub>2</sub>	ARITHMETIC MEAN	NS	3	0.004	0.003	0.003	0.004	0.003	0.004	0.004	0.003	0.003	0.003
	2ND MAX 24-HOUR	NS	3	0.013	0.011	0.011	0.013	0.011	0.018	0.015	0.010	0.007	0.009
<b>COLUMBIA, SC</b>													
CO	2ND MAX 8-HOUR	DOWN	1	6.5	5.8	6.0	6.3	5.6	4.7	4.0	3.4	2.9	3.7
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.03	0.03	0.05	0.04	0.02	0.02	0.01	0.01	0.01	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.013	0.013	0.009	0.011	0.013	0.011	0.013	0.013	0.011	0.014
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.08	0.08	0.08	0.07	0.08	0.08	0.08	0.08	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	3	0.11	0.11	0.10	0.10	0.11	0.10	0.10	0.10	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	6	20	20	17	17	16	16	13	15	15	16
	90TH PERCENTILE	DOWN	6	57	56	55	51	49	47	46	45	49	55
SO <sub>2</sub>	ARITHMETIC MEAN	NS	4	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003
	2ND MAX 24-HOUR	NS	4	0.011	0.012	0.013	0.013	0.011	0.011	0.008	0.013	0.012	0.011
<b>COLUMBUS, GA-AL</b>													
LEAD	MAX QUARTERLY MEAN	DOWN	1	2.04	2.04	2.04	1.46	1.01	1.43	0.78	0.47	0.45	0.29
O <sub>3</sub>	4TH MAX 8-HOUR	UP	2	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.09	0.08	0.08
	2ND DAILY MAX 1-HOUR	UP	2	0.09	0.10	0.09	0.09	0.10	0.10	0.11	0.09	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	26	29	27	26	25	27	28	22	26	30
	90TH PERCENTILE	NS	1	38	46	40	43	37	44	44	33	39	45
<b>COLUMBUS, OH</b>													
CO	2ND MAX 8-HOUR	DOWN	3	5.7	4.1	4.8	4.9	3.9	4.5	3.8	2.5	2.4	3.0
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.08	0.06	0.06	0.06	0.04	0.04	0.04	0.03	0.04	0.04
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.09	0.09	0.09	0.10	0.08	0.08	0.09	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	3	0.11	0.11	0.11	0.09	0.10	0.10	0.11	0.11	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	2	31	31	30	26	27	27	29	24	27	30
	90TH PERCENTILE	NS	2	55	58	53	44	48	47	52	36	52	51
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.008	0.008	0.007	0.006	0.007	0.007	0.004	0.004	0.004	0.005
	2ND MAX 24-HOUR	DOWN	1	0.038	0.038	0.033	0.030	0.034	0.041	0.019	0.021	0.025	0.019
<b>CORPUS CHRISTI, TX</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.08	0.07	0.08	0.08	0.08	0.09	0.08	0.07
	2ND DAILY MAX 1-HOUR	NS	2	0.10	0.10	0.11	0.09	0.12	0.11	0.12	0.10	0.09	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	30	27	31	29	29	28	28	23	25	25
	90TH PERCENTILE	NS	2	45	40	43	41	52	44	44	34	41	41
SO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.003	0.002	0.003	0.003	0.003	0.002	0.002	0.002	0.002	0.002
	2ND MAX 24-HOUR	NS	2	0.019	0.013	0.027	0.018	0.024	0.012	0.016	0.013	0.012	0.017
<b>CUMBERLAND, MD-WV</b>													
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.011	0.010	0.009	0.006	0.008	0.010	0.005	0.003	0.006	0.006
	2ND MAX 24-HOUR	DOWN	1	0.049	0.031	0.028	0.024	0.027	0.037	0.015	0.019	0.020	0.020

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area		Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>DALLAS, TX</b>													
CO	2ND MAX 8-HOUR	NS	1	4.5	4.7	3.8	5.6	5.4	5.3	5.9	5.5	3.7	2.7
LEAD	MAX QUARTERLY MEAN	DOWN	10	0.18	0.20	0.15	0.17	0.17	0.11	0.12	0.07	0.07	0.07
NO <sub>2</sub>	ARITHMETIC MEAN	UP	1	0.012	0.012	0.013	0.015	0.014	0.016	0.019	0.019	0.018	0.016
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.10	0.10	0.10	0.06	0.09	0.10	0.09	0.11	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	2	0.13	0.14	0.10	0.12	0.13	0.12	0.14	0.12	0.12	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	5	29	28	26	26	27	26	30	30	26	26
	90TH PERCENTILE	NS	5	49	43	39	40	41	41	49	49	41	41
<b>DANBURY, CT</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.10	0.10	0.11	0.10	0.08	0.10	0.09	0.09	0.08	0.11
	2ND DAILY MAX 1-HOUR	NS	1	0.13	0.15	0.14	0.12	0.14	0.13	0.13	0.11	0.14	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	25	22	26	22	19	26	22	22	21	20
	90TH PERCENTILE	DOWN	1	45	38	44	38	40	37	34	36	35	30
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.008	0.007	0.008	0.007	0.006	0.006	0.004	0.005	0.005	0.004
	2ND MAX 24-HOUR	DOWN	1	0.036	0.033	0.032	0.027	0.024	0.037	0.020	0.020	0.024	0.020
<b>DAVENPORT-MOLINE-ROCK ISLAND, IA-IL</b>													
LEAD	MAX QUARTERLY MEAN	NS	1	0.02	0.03	0.01	0.02	0.02	0.02	0.01	0.02	0.02	0.01
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.07	0.08	0.08	0.07	0.07	0.08	0.08	0.07
	2ND DAILY MAX 1-HOUR	NS	2	0.10	0.08	0.09	0.10	0.08	0.09	0.09	0.09	0.08	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	4	32	31	30	29	27	31	31	30	30	32
	90TH PERCENTILE	NS	4	53	51	46	51	44	51	53	50	49	56
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	3	0.005	0.005	0.004	0.004	0.004	0.004	0.004	0.003	0.003	0.003
	2ND MAX 24-HOUR	DOWN	3	0.025	0.022	0.020	0.019	0.018	0.023	0.017	0.016	0.015	0.013
<b>DAYTON-SPRINGFIELD, OH</b>													
CO	2ND MAX 8-HOUR	DOWN	2	4.8	3.2	3.5	3.6	3.6	3.4	3.0	2.4	3.0	2.8
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.06	0.05	0.04	0.04	0.06	0.04	0.05	0.04	0.04	0.03
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.09	0.09	0.09	0.09	0.08	0.09	0.09	0.09	0.10	0.09
	2ND DAILY MAX 1-HOUR	NS	3	0.12	0.11	0.11	0.10	0.11	0.11	0.12	0.11	0.11	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	31	26	28	25	25	24	26	23	24	25
	90TH PERCENTILE	DOWN	3	57	48	43	41	46	40	44	38	41	42
SO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.006	0.006	0.005	0.005	0.006	0.006	0.004	0.005	0.005	0.005
	2ND MAX 24-HOUR	NS	2	0.031	0.023	0.022	0.020	0.031	0.032	0.016	0.027	0.027	0.019
<b>DECATUR, AL</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	25	25	28	25	25	22	25	21	23	25
	90TH PERCENTILE	NS	1	42	42	54	41	44	35	40	32	41	41
<b>DECATUR, IL</b>													
LEAD	MAX QUARTERLY MEAN	NS	1	0.07	0.03	0.03	0.03	0.03	0.05	0.03	0.02	0.03	0.02
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.08	0.09	0.08	0.07	0.08	0.08	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.09	0.09	0.10	0.09	0.08	0.10	0.10	0.10	0.09	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	40	34	36	38	28	29	30	28	27	32
	90TH PERCENTILE	DOWN	1	68	56	54	63	46	53	56	43	41	49
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.012	0.008	0.007	0.005	0.006	0.007	0.005	0.005	0.006	0.005
	2ND MAX 24-HOUR	DOWN	1	0.108	0.060	0.039	0.023	0.025	0.030	0.024	0.022	0.021	0.020
<b>DENVER, CO</b>													
CO	2ND MAX 8-HOUR	DOWN	6	7.8	7.2	7.0	8.3	6.6	6.1	5.6	4.8	4.7	3.9
LEAD	MAX QUARTERLY MEAN	DOWN	3	0.05	0.06	0.05	0.06	0.06	0.04	0.05	0.03	0.02	0.02
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.033	0.032	0.032	0.032	0.027	0.032	0.029	0.027	0.029	0.029
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	5	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	5	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	11	26	24	25	24	27	23	20	20	21	21
	90TH PERCENTILE	DOWN	11	48	46	49	43	55	45	37	37	42	40
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.006	0.006	0.006	0.007	0.006	0.006	0.004	0.005	0.005	0.004
	2ND MAX 24-HOUR	NS	2	0.023	0.020	0.026	0.038	0.025	0.025	0.016	0.020	0.021	0.018
<b>DES MOINES, IA</b>													
CO	2ND MAX 8-HOUR	NS	3	4.4	4.6	4.6	3.9	4.5	3.9	4.0	3.2	3.0	5.7
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.05	0.05	0.04	0.04	0.07	0.05	0.05	0.07	0.06	0.06
	2ND DAILY MAX 1-HOUR	NS	2	0.06	0.07	0.06	0.08	0.08	0.07	0.08	0.08	0.08	0.07
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	3	33	32	29	28	29	30	30	31	32	26
	90TH PERCENTILE	NS	3	60	56	48	55	49	52	54	53	59	45
<b>DETROIT, MI</b>													
CO	2ND MAX 8-HOUR	DOWN	6	6.0	4.5	5.1	4.2	4.5	6.6	4.5	3.9	3.3	3.1
LEAD	MAX QUARTERLY MEAN	NS	6	0.06	0.05	0.04	0.04	0.03	0.04	0.03	0.03	0.04	0.04
NO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.021	0.021	0.020	0.020	0.021	0.022	0.020	0.021	0.020	0.021
O <sub>3</sub>	4TH MAX 8-HOUR	NS	8	0.09	0.09	0.08	0.09	0.08	0.08	0.09	0.09	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	8	0.12	0.10	0.12	0.10	0.10	0.12	0.12	0.10	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	6	39	36	33	28	33	38	35	31	28	29
	90TH PERCENTILE	DOWN	6	65	64	59	47	55	61	59	50	45	53
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	10	0.010	0.010	0.008	0.007	0.007	0.007	0.006	0.006	0.005	0.006
	2ND MAX 24-HOUR	NS	10	0.037	0.038	0.033	0.030	0.030	0.032	0.030	0.034	0.027	0.032
<b>DOTHAN, AL</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	26	31	28	25	26	28	28	22	25	27
	90TH PERCENTILE	NS	1	42	64	44	43	52	47	46	36	45	41

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area		Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>DUBUQUE, IA</b>													
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.005	0.005	0.004	0.004	0.003	0.005	0.006	0.003	0.003	0.003
	2ND MAX 24-HOUR	DOWN	1	0.030	0.037	0.028	0.029	0.014	0.037	0.027	0.022	0.022	0.022
<b>DULUTH-SUPERIOR, MN-WI</b>													
CO	2ND MAX 8-HOUR	NS	1	9.9	4.4	5.2	4.0	4.1	4.3	4.5	4.5	3.2	3.7
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	6	26	22	23	20	19	19	19	19	18	20
	90TH PERCENTILE	DOWN	6	39	41	37	34	32	31	32	32	31	30
<b>DUTCHESS COUNTY, NY</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	1	0.10	0.10	0.10	0.10	0.09	0.10	0.09	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	DOWN	1	0.13	0.13	0.13	0.11	0.14	0.12	0.12	0.11	0.11	0.11
<b>EL PASO, TX</b>													
CO	2ND MAX 8-HOUR	DOWN	5	9.8	10.9	9.1	8.1	8.0	6.6	6.8	8.4	6.9	6.6
LEAD	MAX QUARTERLY MEAN	DOWN	4	0.30	0.27	0.27	0.19	0.18	0.12	0.13	0.20	0.09	0.11
NO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.025	0.022	0.023	0.026	0.026	0.029	0.029	0.029	0.027	0.025
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.08	0.08	0.08	0.07	0.07	0.07	0.08	0.08	0.08	0.07
	2ND DAILY MAX 1-HOUR	DOWN	3	0.13	0.12	0.12	0.12	0.11	0.13	0.11	0.12	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	8	37	32	28	28	24	25	28	27	23	23
	90TH PERCENTILE	DOWN	8	68	63	53	50	43	47	51	51	45	44
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	3	0.013	0.010	0.010	0.012	0.009	0.007	0.008	0.008	0.007	0.006
	2ND MAX 24-HOUR	DOWN	3	0.055	0.055	0.047	0.053	0.049	0.029	0.038	0.036	0.030	0.028
<b>ELMIRA, NY</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.07	0.07	0.08	0.09	0.07	0.08	0.07	0.08	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	1	0.09	0.10	0.10	0.09	0.09	0.08	0.09	0.09	0.08	0.09
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.005	0.005	0.005	0.005	0.005	0.004	0.004	0.004	0.003	0.003
	2ND MAX 24-HOUR	DOWN	1	0.026	0.021	0.022	0.021	0.019	0.023	0.014	0.016	0.015	0.011
<b>ERIE, PA</b>													
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.015	0.015	0.013	0.014	0.014	0.015	0.015	0.015	0.015	0.014
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.08	0.09	0.08	0.08	0.09	0.09	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.12	0.10	0.11	0.10	0.11	0.10	0.11	0.10	0.10	0.12
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.014	0.014	0.010	0.011	0.011	0.010	0.009	0.011	0.009	0.010
	2ND MAX 24-HOUR	NS	1	0.074	0.057	0.044	0.056	0.072	0.076	0.050	0.066	0.035	0.068
<b>EUGENE-SPRINGFIELD, OR</b>													
CO	2ND MAX 8-HOUR	NS	2	5.5	4.9	5.2	6.2	5.3	5.9	5.2	5.2	5.0	4.3
LEAD	MAX QUARTERLY MEAN	NS	1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.06	0.06	0.07	0.07	0.07	0.05	0.07	0.06	0.09	0.06
	2ND DAILY MAX 1-HOUR	NS	2	0.08	0.09	0.09	0.10	0.08	0.09	0.08	0.11	0.07	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	5	31	28	32	28	29	25	23	20	21	18
	90TH PERCENTILE	DOWN	5	62	56	65	56	63	46	44	37	37	34
<b>EVANSVILLE-HENDERSON, IN-KY</b>													
CO	2ND MAX 8-HOUR	NS	1	2.3	2.5	2.0	2.3	2.6	2.7	2.7	2.0	2.3	2.1
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.020	0.018	0.021	0.018	0.017	0.018	0.017	0.017	0.016	0.018
O <sub>3</sub>	4TH MAX 8-HOUR	NS	5	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	5	0.11	0.11	0.11	0.09	0.10	0.11	0.11	0.10	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	4	34	31	32	29	29	31	31	25	26	27
	90TH PERCENTILE	NS	4	54	50	47	49	49	51	52	40	44	44
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	7	0.013	0.014	0.013	0.012	0.012	0.012	0.010	0.011	0.011	0.012
	2ND MAX 24-HOUR	DOWN	7	0.056	0.062	0.061	0.068	0.051	0.048	0.042	0.048	0.048	0.046
<b>FAYETTEVILLE, NC</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.09	0.08	0.08	0.09	0.08	0.08	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	2	0.10	0.10	0.10	0.09	0.11	0.10	0.10	0.10	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	29	31	27	26	27	25	23	25	25	27
	90TH PERCENTILE	NS	1	47	50	45	39	41	40	35	39	41	41
<b>FAYETTEVILLE-SPRINGDALE-ROGERS, AR</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	26	23	24	22	24	25	24	23	20	20
	90TH PERCENTILE	NS	1	37	38	38	30	39	40	36	36	31	31
<b>FLINT, MI</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.08	0.09	0.07	0.07	0.07	0.08	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.10	0.10	0.09	0.10	0.09	0.09	0.10	0.10	0.11
<b>FLORENCE, AL</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	24	24	24	21	23	20	22	18	19	22
	90TH PERCENTILE	DOWN	1	39	39	41	34	37	34	37	29	32	35
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.005	0.005	0.004	0.004	0.004	0.003	0.003	0.003	0.003	0.003
	2ND MAX 24-HOUR	DOWN	1	0.036	0.027	0.025	0.019	0.022	0.022	0.018	0.019	0.020	0.019
<b>FORT COLLINS-LOVELAND, CO</b>													
CO	2ND MAX 8-HOUR	DOWN	1	8.3	7.0	9.8	6.9	6.6	6.0	5.2	5.1	5.2	4.1
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	2	0.09	0.08	0.09	0.09	0.09	0.10	0.09	0.09	0.09	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	29	23	25	23	22	22	22	20	16	16
	90TH PERCENTILE	DOWN	1	49	39	50	35	36	34	41	33	24	26

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area		Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>FORT LAUDERDALE, FL</b>													
CO	2ND MAX 8-HOUR	DOWN	5	4.8	4.0	4.1	4.2	3.7	3.6	3.9	3.3	3.2	2.5
LEAD	MAX QUARTERLY MEAN	NS	1	0.03	0.01	0.02	0.04	0.03	0.03	0.02	0.05	0.04	0.04
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.009	0.009	0.009	0.009	0.010	0.009	0.011	0.010	0.010	0.010
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.08	0.08	0.07	0.06	0.08	0.08	0.07	0.07	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	3	0.11	0.09	0.09	0.10	0.10	0.09	0.09	0.09	0.09	0.10
<b>FORT MYERS-CAPE CORAL, FL</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	1	0.08	0.08	0.07	0.06	0.07	0.07	0.08	0.07	0.06	0.07
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.08	0.08	0.08	0.08	0.09	0.09	0.07	0.08	0.11
<b>FORT SMITH, AR-OK</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	28	26	25	24	25	24	26	25	22	22
	90TH PERCENTILE	NS	1	43	38	37	36	39	38	44	36	39	39
<b>FORT WAYNE, IN</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.08	0.09	0.09	0.08	0.10	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.12	0.09	0.10	0.09	0.10	0.11	0.11	0.11	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	29	27	27	23	23	24	24	17	20	24
	90TH PERCENTILE	DOWN	1	53	53	44	38	36	43	44	28	28	39
<b>FORT WORTH-ARLINGTON, TX</b>													
CO	2ND MAX 8-HOUR	DOWN	2	4.8	4.2	3.7	4.0	3.4	3.2	3.2	3.0	3.0	2.9
LEAD	MAX QUARTERLY MEAN	NS	2	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.013	0.012	0.014	0.015	0.013	0.017	0.017	0.015	0.016	0.013
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.10	0.10	0.10	0.11	0.08	0.09	0.10	0.10	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	2	0.13	0.14	0.15	0.12	0.11	0.13	0.14	0.13	0.12	0.13
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	3	24	24	23	21	21	20	24	25	22	22
	90TH PERCENTILE	NS	3	38	41	33	31	33	33	38	40	34	34
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.001	0.002	0.002	0.003	0.001	0.002	0.001	0.001	0.001	0.001
	2ND MAX 24-HOUR	NS	1	0.007	0.008	0.006	0.013	0.005	0.006	0.004	0.011	0.011	0.011
<b>FRESNO, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	4	5.7	5.7	6.1	4.6	4.2	4.9	4.2	4.2	3.5	3.5
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.07	0.07	0.04	0.04	0.03	0.02	0.02	0.01	0.01	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.021	0.021	0.021	0.020	0.021	0.020	0.020	0.019	0.018	0.018
O <sub>3</sub>	4TH MAX 8-HOUR	NS	5	0.10	0.10	0.10	0.11	0.11	0.11	0.10	0.10	0.11	0.10
	2ND DAILY MAX 1-HOUR	NS	5	0.14	0.14	0.15	0.14	0.14	0.13	0.13	0.14	0.13	0.15
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	5	55	55	54	45	43	40	41	35	40	34
	90TH PERCENTILE	DOWN	5	107	107	100	73	86	63	80	59	77	62
<b>GADSDEN, AL</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	2	28	33	32	31	33	30	30	23	26	31
	90TH PERCENTILE	NS	2	45	55	56	52	58	46	43	36	47	50
<b>GALVESTON-TEXAS CITY, TX</b>													
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.03	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.10	0.10	0.09	0.09	0.07	0.11	0.09	0.14	0.08	0.10
	2ND DAILY MAX 1-HOUR	NS	1	0.14	0.15	0.15	0.10	0.18	0.13	0.20	0.11	0.18	0.15
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	28	24	22	24	24	23	25	19	20	20
	90TH PERCENTILE	DOWN	3	47	40	38	35	45	36	40	27	32	32
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.008	0.007	0.007	0.005	0.005	0.006	0.006	0.014	0.006	0.004
	2ND MAX 24-HOUR	NS	1	0.045	0.063	0.050	0.039	0.056	0.052	0.089	0.067	0.053	0.039
<b>GARY, IN</b>													
CO	2ND MAX 8-HOUR	NS	2	4.3	4.2	4.1	4.4	4.7	5.6	3.9	3.3	3.7	3.9
LEAD	MAX QUARTERLY MEAN	NS	4	0.23	0.21	0.11	0.11	0.08	0.17	0.12	0.13	0.10	0.10
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.08	0.08	0.08	0.09	0.08	0.07	0.08	0.10	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	3	0.10	0.09	0.11	0.11	0.09	0.11	0.12	0.11	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	8	33	33	29	26	24	26	25	21	22	23
	90TH PERCENTILE	DOWN	8	54	52	45	43	39	42	41	33	33	36
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	5	0.011	0.010	0.008	0.007	0.007	0.006	0.005	0.005	0.005	0.005
	2ND MAX 24-HOUR	DOWN	5	0.047	0.048	0.028	0.028	0.032	0.032	0.022	0.023	0.024	0.027
<b>GLENS FALLS, NY</b>													
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.004	0.005	0.004	0.004	0.004	0.004	0.003	0.002	0.002	0.002
	2ND MAX 24-HOUR	DOWN	1	0.023	0.040	0.020	0.017	0.018	0.027	0.011	0.013	0.013	0.013
<b>GOLDSBORO, NC</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	27	27	27	24	24	21	20	23	23	22
	90TH PERCENTILE	DOWN	1	46	46	46	36	36	33	30	33	36	34
<b>GRAND FORKS, ND-MN</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	24	25	20	18	17	16	18	15	15	15
	90TH PERCENTILE	DOWN	1	48	38	34	33	28	28	30	22	22	22
<b>GRAND RAPIDS-MUSKEGON-HOLLAND, MI</b>													
CO	2ND MAX 8-HOUR	NS	1	4.5	3.5	4.0	3.2	3.2	4.0	4.6	3.3	2.4	2.9
LEAD	MAX QUARTERLY MEAN	DOWN	3	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
O <sub>3</sub>	4TH MAX 8-HOUR	NS	4	0.10	0.10	0.10	0.10	0.08	0.08	0.09	0.10	0.09	0.08
	2ND DAILY MAX 1-HOUR	DOWN	4	0.13	0.13	0.13	0.11	0.10	0.11	0.12	0.12	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	29	30	26	35	22	27	21	20	19	21
	90TH PERCENTILE	DOWN	2	46	55	41	54	39	46	40	35	32	38
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.004	0.004	0.004	0.003	0.003	0.003	0.002	0.002	0.002	0.002
	2ND MAX 24-HOUR	DOWN	1	0.016	0.012	0.014	0.015	0.012	0.013	0.011	0.011	0.008	0.008

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area		Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>GREAT FALLS, MT</b>													
CO	2ND MAX 8-HOUR	NS	1	5.6	5.6	6.6	5.8	6.9	4.8	6.2	5.4	6.4	4.5
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	20	24	21	21	21	21	18	19	20	20
	90TH PERCENTILE	NS	1	31	39	44	40	40	34	30	35	32	32
<b>GREELEY, CO</b>													
CO	2ND MAX 8-HOUR	DOWN	1	7.3	7.1	7.8	7.5	5.8	5.2	5.3	7.0	4.8	4.4
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.07	0.07	0.08	0.08	0.06	0.06	0.07	0.07	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.11	0.10	0.08	0.09	0.09	0.09	0.10	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	30	25	26	25	23	23	20	18	18	17
	90TH PERCENTILE	DOWN	1	50	43	51	43	39	37	34	30	30	30
<b>GREEN BAY, WI</b>													
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.006	0.005	0.005	0.004	0.003	0.003	0.004	0.003	0.003	0.003
	2ND MAX 24-HOUR	DOWN	1	0.024	0.020	0.042	0.021	0.018	0.015	0.017	0.011	0.017	0.011
<b>GREENSBORO–WINSTON-SALEM–HIGH POINT, NC</b>													
CO	2ND MAX 8-HOUR	DOWN	1	9.7	6.8	6.6	5.7	5.5	6.0	6.2	4.3	4.7	5.4
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.016	0.017	0.016	0.015	0.017	0.017	0.016	0.016	0.017	0.017
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.09	0.08	0.08	0.09	0.09	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	UP	2	0.09	0.11	0.10	0.10	0.12	0.11	0.11	0.11	0.11	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	32	31	31	27	27	25	26	24	24	25
	90TH PERCENTILE	DOWN	3	51	49	48	41	45	35	39	35	37	39
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.007	0.008	0.007	0.006	0.006	0.007	0.007	0.007	0.007	0.006
	2ND MAX 24-HOUR	NS	1	0.024	0.023	0.027	0.019	0.022	0.021	0.025	0.026	0.023	0.023
<b>GREENVILLE, NC</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.08	0.08	0.08	0.09	0.08	0.08	0.09	0.10
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.10	0.09	0.10	0.11	0.09	0.10	0.10	0.12	0.11
<b>GREENVILLE-SPARTANBURG-ANDERSON, SC</b>													
LEAD	MAX QUARTERLY MEAN	DOWN	3	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.01	0.01	0.02
O <sub>3</sub>	4TH MAX 8-HOUR	UP	4	0.08	0.08	0.08	0.08	0.08	0.09	0.08	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	UP	4	0.10	0.09	0.10	0.09	0.11	0.10	0.11	0.11	0.10	0.12
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.002	0.002	0.003	0.003	0.003	0.003	0.001	0.002	0.003	0.003
	2ND MAX 24-HOUR	NS	1	0.011	0.011	0.017	0.013	0.012	0.016	0.007	0.012	0.014	0.015
<b>HAMILTON-MIDDLETOWN, OH</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.09	0.09	0.10	0.09	0.07	0.09	0.09	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	2	0.11	0.12	0.11	0.10	0.12	0.11	0.13	0.11	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	4	34	34	36	30	31	30	34	29	30	30
	90TH PERCENTILE	NS	4	60	60	61	51	63	53	58	45	54	53
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.010	0.010	0.009	0.007	0.008	0.008	0.005	0.007	0.007	0.006
	2ND MAX 24-HOUR	DOWN	2	0.040	0.037	0.040	0.033	0.035	0.038	0.019	0.025	0.034	0.021
<b>HARRISBURG-LEBANON-CARLISLE, PA</b>													
LEAD	MAX QUARTERLY MEAN	NS	1	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
NO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.014	0.013	0.014	0.013	0.011	0.015	0.014	0.015	0.013	0.012
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.09	0.09	0.09	0.10	0.08	0.09	0.09	0.09	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	3	0.10	0.11	0.11	0.09	0.11	0.12	0.11	0.10	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	21	19	22	18	21	22	21	19	22	22
	90TH PERCENTILE	NS	1	33	35	39	27	30	44	32	31	33	33
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.006	0.005	0.006	0.005	0.006	0.007	0.005	0.005	0.005	0.005
	2ND MAX 24-HOUR	NS	2	0.029	0.021	0.021	0.022	0.021	0.035	0.017	0.021	0.022	0.017
<b>HARTFORD, CT</b>													
CO	2ND MAX 8-HOUR	DOWN	2	6.7	6.7	6.1	6.1	5.6	6.4	5.8	5.0	4.8	5.4
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.020	0.019	0.020	0.017	0.018	0.020	0.017	0.016	0.018	0.020
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	3	0.11	0.11	0.10	0.11	0.09	0.10	0.10	0.10	0.08	0.10
	2ND DAILY MAX 1-HOUR	NS	3	0.15	0.15	0.16	0.12	0.15	0.13	0.13	0.10	0.14	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	6	23	20	23	20	18	20	16	17	18	18
	90TH PERCENTILE	DOWN	6	37	35	38	34	31	35	29	30	33	31
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.007	0.007	0.007	0.006	0.005	0.006	0.004	0.004	0.004	0.004
	2ND MAX 24-HOUR	DOWN	4	0.034	0.030	0.030	0.027	0.019	0.027	0.019	0.018	0.021	0.019
<b>HONOLULU, HI</b>													
CO	2ND MAX 8-HOUR	DOWN	3	2.6	2.2	2.0	2.1	2.4	2.3	2.0	1.9	1.8	1.7
LEAD	MAX QUARTERLY MEAN	NS	2	0.03	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.02	0.02
O <sub>3</sub>	4TH MAX 8-HOUR	UP	1	0.02	0.02	0.03	0.04	0.05	0.05	0.05	0.05	0.04	0.05
	2ND DAILY MAX 1-HOUR	NS	1	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.05	0.05	0.06
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	16	16	17	17	16	19	15	16	18	20
	90TH PERCENTILE	NS	1	20	23	25	22	22	26	23	24	23	27
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.001	0.001	0.002
	2ND MAX 24-HOUR	NS	3	0.006	0.006	0.006	0.006	0.009	0.006	0.005	0.007	0.005	0.007
<b>HOUMA, LA</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.08	0.08	0.07	0.08	0.09	0.10	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.11	0.12	0.10	0.09	0.10	0.10	0.14	0.09	0.10	0.11

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area		Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>HOUSTON, TX</b>													
CO	2ND MAX 8-HOUR	DOWN	4	5.8	6.8	6.0	6.8	5.6	4.9	4.0	5.3	4.3	3.8
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.04	0.02	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.022	0.023	0.022	0.022	0.019	0.021	0.021	0.020	0.021	0.019
O <sub>3</sub>	4TH MAX 8-HOUR	NS	10	0.11	0.11	0.12	0.10	0.10	0.09	0.10	0.12	0.10	0.11
	2ND DAILY MAX 1-HOUR	NS	10	0.18	0.19	0.17	0.16	0.16	0.15	0.17	0.16	0.17	0.17
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	5	32	31	31	30	30	31	30	26	29	29
	90TH PERCENTILE	DOWN	5	53	50	48	48	50	50	48	39	48	48
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	7	0.005	0.005	0.005	0.005	0.005	0.004	0.004	0.004	0.003	0.003
	2ND MAX 24-HOUR	DOWN	7	0.026	0.025	0.025	0.022	0.020	0.018	0.026	0.022	0.017	0.018
<b>HUNTINGTON-ASHLAND, WV-KY-OH</b>													
CO	2ND MAX 8-HOUR	NS	1	5.5	4.7	4.4	4.1	3.8	5.2	3.8	3.7	3.8	7.2
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.06	0.04	0.04	0.04	0.04	0.03	0.04	0.03	0.02	0.02
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.09	0.09	0.09	0.10	0.08	0.09	0.09	0.09	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	3	0.12	0.11	0.13	0.10	0.11	0.13	0.12	0.10	0.11	0.13
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	5	34	34	32	29	28	31	30	26	28	26
	90TH PERCENTILE	DOWN	5	58	54	50	46	52	52	48	39	45	44
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	8	0.013	0.012	0.012	0.010	0.011	0.010	0.009	0.008	0.008	0.008
	2ND MAX 24-HOUR	DOWN	8	0.075	0.070	0.050	0.043	0.052	0.049	0.034	0.028	0.031	0.033
<b>HUNTSVILLE, AL</b>													
CO	2ND MAX 8-HOUR	DOWN	1	5.2	4.2	4.1	4.2	4.0	3.5	3.6	3.0	3.1	3.3
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.07	0.07	0.08	0.08	0.09	0.09	0.08	0.08	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.09	0.09	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	32	32	28	27	24	23	23	21	21	22
	90TH PERCENTILE	DOWN	2	49	47	50	44	41	34	33	32	39	35
<b>INDIANAPOLIS, IN</b>													
CO	2ND MAX 8-HOUR	DOWN	2	4.0	4.0	5.2	3.5	4.0	3.5	3.9	2.8	3.2	2.7
LEAD	MAX QUARTERLY MEAN	DOWN	6	0.66	0.76	0.51	0.45	0.45	0.69	0.21	0.06	0.04	0.05
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.018	0.018	0.018	0.018	0.018	0.019	0.020	0.018	0.015	0.019
O <sub>3</sub>	4TH MAX 8-HOUR	NS	6	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.09	0.10	0.09
	2ND DAILY MAX 1-HOUR	NS	6	0.11	0.10	0.10	0.09	0.10	0.11	0.11	0.12	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	13	35	33	31	28	28	28	28	23	23	24
	90TH PERCENTILE	DOWN	13	58	54	49	43	51	46	46	34	36	39
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	8	0.010	0.009	0.008	0.007	0.008	0.007	0.005	0.005	0.005	0.005
	2ND MAX 24-HOUR	DOWN	8	0.038	0.033	0.029	0.029	0.036	0.039	0.021	0.024	0.023	0.021
<b>JACKSON, MS</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	UP	2	0.07	0.07	0.08	0.07	0.07	0.07	0.07	0.08	0.08	0.08
	2ND DAILY MAX 1-HOUR	UP	2	0.08	0.10	0.09	0.08	0.09	0.09	0.09	0.09	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	26	26	26	27	23	21	23	22	24	20
	90TH PERCENTILE	DOWN	1	44	44	44	43	38	32	34	34	36	32
<b>JACKSON, TN</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	31	28	27	27	23	23	25	22	23	23
	90TH PERCENTILE	DOWN	2	47	44	39	41	37	32	43	34	34	34
<b>JACKSONVILLE, FL</b>													
CO	2ND MAX 8-HOUR	DOWN	5	5.5	4.2	3.7	4.1	4.0	3.8	3.6	3.1	2.6	2.8
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.04	0.04	0.03	0.02	0.05	0.02	0.03	0.02	0.02	0.02
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.015	0.015	0.014	0.014	0.015	0.014	0.016	0.015	0.014	0.015
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.08	0.07	0.08	0.08	0.07	0.07	0.07	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.11	0.11	0.09	0.10	0.11	0.10	0.11	0.09	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	36	34	32	26	27	26	27	24	24	27
	90TH PERCENTILE	DOWN	3	50	45	44	38	37	39	41	32	35	38
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	5	0.004	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
	2ND MAX 24-HOUR	DOWN	5	0.037	0.037	0.023	0.023	0.025	0.030	0.019	0.020	0.017	0.021
<b>JACKSONVILLE, NC</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	24	24	24	23	23	20	20	22	20	22
	90TH PERCENTILE	NS	1	39	39	39	35	35	28	29	32	32	37
<b>JAMESTOWN, NY</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	UP	1	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.10	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	2	21	21	21	18	16	16	16	17	17	19
	90TH PERCENTILE	NS	2	39	39	39	29	32	33	30	28	34	37
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.011	0.010	0.010	0.009	0.009	0.008	0.007	0.006	0.006	0.006
	2ND MAX 24-HOUR	DOWN	2	0.051	0.047	0.039	0.039	0.041	0.053	0.039	0.033	0.029	0.026
<b>JERSEY CITY, NJ</b>													
CO	2ND MAX 8-HOUR	DOWN	1	7.3	7.2	7.5	6.0	5.6	5.9	6.2	4.9	4.3	4.1
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.031	0.030	0.028	0.028	0.027	0.026	0.026	0.027	0.026	0.027
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.10	0.10	0.11	0.12	0.09	0.10	0.10	0.10	0.09	0.11
	2ND DAILY MAX 1-HOUR	NS	1	0.12	0.18	0.14	0.11	0.13	0.12	0.13	0.12	0.12	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	3	33	31	32	26	27	32	25	27	26	26
	90TH PERCENTILE	NS	3	51	52	53	43	44	55	40	41	41	41
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.014	0.013	0.012	0.010	0.009	0.009	0.007	0.008	0.008	0.007
	2ND MAX 24-HOUR	DOWN	2	0.047	0.043	0.035	0.041	0.030	0.036	0.026	0.027	0.025	0.022

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area	Trend	#Trend Sites	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	
<b>JOHNSON CITY-KINGSPORT-BRISTOL, TN-VA</b>													
CO	2ND MAX 8-HOUR	NS	1	3.7	3.4	3.3	3.0	6.5	3.4	3.0	3.0	3.5	3.4
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.019	0.019	0.019	0.018	0.017	0.017	0.018	0.018	0.018	0.017
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.10	0.08	0.08	0.09	0.08	0.09	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.11	0.12	0.12	0.10	0.13	0.10	0.11	0.10	0.11	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	31	32	32	29	29	28	27	26	25	25
	90TH PERCENTILE	DOWN	3	50	50	50	44	50	42	43	42	42	39
SO <sub>2</sub>	ARITHMETIC MEAN	NS	3	0.010	0.009	0.009	0.009	0.008	0.009	0.008	0.009	0.009	0.009
	2ND MAX 24-HOUR	NS	3	0.053	0.044	0.044	0.039	0.042	0.045	0.039	0.044	0.050	0.043
<b>JOHNSTOWN, PA</b>													
CO	2ND MAX 8-HOUR	NS	1	4.1	3.7	4.8	4.4	4.2	4.1	3.5	4.8	2.7	3.1
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.019	0.018	0.019	0.018	0.017	0.018	0.015	0.018	0.016	0.015
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.08	0.10	0.07	0.08	0.08	0.09	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.10	0.11	0.09	0.10	0.09	0.10	0.10	0.10	0.12
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.017	0.014	0.015	0.013	0.015	0.014	0.012	0.011	0.009	0.008
	2ND MAX 24-HOUR	DOWN	1	0.089	0.046	0.043	0.052	0.049	0.080	0.042	0.034	0.030	0.027
<b>KALAMAZOO-BATTLE CREEK, MI</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	34	28	29	27	24	26	26	22	23	27
	90TH PERCENTILE	DOWN	1	61	58	56	42	39	44	50	33	38	47
<b>KANSAS CITY, MO-KS</b>													
CO	2ND MAX 8-HOUR	DOWN	3	5.2	4.4	4.0	3.9	4.2	4.3	3.3	3.2	3.2	3.7
LEAD	MAX QUARTERLY MEAN	NS	5	0.06	0.03	0.03	0.02	0.02	0.02	0.02	0.03	0.10	0.10
NO <sub>2</sub>	ARITHMETIC MEAN	NS	3	0.011	0.011	0.010	0.010	0.009	0.010	0.010	0.012	0.010	0.012
O <sub>3</sub>	4TH MAX 8-HOUR	UP	6	0.07	0.07	0.07	0.08	0.08	0.07	0.08	0.09	0.08	0.09
	2ND DAILY MAX 1-HOUR	UP	6	0.10	0.10	0.10	0.09	0.10	0.10	0.12	0.10	0.11	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	7	34	31	32	30	30	30	24	33	26	27
	90TH PERCENTILE	DOWN	7	56	51	51	47	48	47	44	56	40	44
SO <sub>2</sub>	ARITHMETIC MEAN	NS	5	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.004	0.004	0.003
	2ND MAX 24-HOUR	NS	5	0.016	0.022	0.017	0.016	0.020	0.025	0.018	0.024	0.013	0.010
<b>KENOSHA, WI</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.10	0.10	0.08	0.11	0.08	0.09	0.09	0.10	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	2	0.13	0.11	0.14	0.11	0.11	0.12	0.12	0.13	0.11	0.12
<b>KNOXVILLE, TN</b>													
CO	2ND MAX 8-HOUR	DOWN	1	6.7	5.1	4.5	4.5	4.6	4.3	4.1	3.3	4.8	3.9
O <sub>3</sub>	4TH MAX 8-HOUR	UP	4	0.07	0.07	0.09	0.08	0.08	0.09	0.09	0.09	0.09	0.10
	2ND DAILY MAX 1-HOUR	UP	4	0.09	0.11	0.10	0.10	0.11	0.11	0.12	0.11	0.12	0.13
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	8	32	32	34	30	30	32	31	31	26	26
	90TH PERCENTILE	DOWN	8	51	53	52	47	48	49	49	49	44	41
SO <sub>2</sub>	ARITHMETIC MEAN	NS	3	0.006	0.006	0.006	0.006	0.006	0.006	0.007	0.006	0.006	0.005
	2ND MAX 24-HOUR	NS	3	0.030	0.030	0.034	0.034	0.037	0.034	0.034	0.037	0.033	0.028
<b>LAKE CHARLES, LA</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.09	0.09	0.07	0.08	0.08	0.08	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.12	0.11	0.12	0.11	0.10	0.10	0.11	0.09	0.11	0.12
<b>LAKELAND-WINTER HAVEN, FL</b>													
SO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.005	0.005	0.006
	2ND MAX 24-HOUR	NS	2	0.015	0.018	0.015	0.015	0.019	0.016	0.013	0.019	0.016	0.022
<b>LANCASTER, PA</b>													
CO	2ND MAX 8-HOUR	NS	1	4.1	3.4	2.6	2.6	3.0	3.8	2.4	2.6	3.3	1.9
LEAD	MAX QUARTERLY MEAN	NS	1	0.05	0.06	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.018	0.017	0.018	0.015	0.015	0.019	0.016	0.017	0.016	0.015
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.09	0.10	0.09	0.10	0.09	0.10	0.09	0.10
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.10	0.12	0.11	0.12	0.11	0.12	0.10	0.13	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	UP	1	31	31	30	27	31	38	33	31	34	34
	90TH PERCENTILE	NS	1	52	52	45	41	54	61	55	46	50	50
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.007	0.006	0.006	0.006	0.007	0.006	0.006	0.005	0.007	0.006
	2ND MAX 24-HOUR	DOWN	1	0.037	0.028	0.023	0.023	0.026	0.030	0.018	0.021	0.023	0.020
<b>LANSING-EAST LANSING, MI</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.10	0.10	0.11	0.09	0.10	0.09	0.10	0.09	0.09	0.10
<b>LAS CRUCES, NM</b>													
CO	2ND MAX 8-HOUR	DOWN	1	6.1	6.3	6.5	4.9	8.7	5.0	4.4	4.3	4.8	4.2
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.16	0.17	0.15	0.13	0.12	0.05	0.09	0.07	0.07	0.07
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06
	2ND DAILY MAX 1-HOUR	NS	2	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	45	35	31	31	30	33	34	33	27	27
	90TH PERCENTILE	DOWN	3	74	60	52	57	47	55	55	50	43	42
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.010	0.011	0.010	0.009	0.006	0.004	0.004	0.004	0.003	0.003
	2ND MAX 24-HOUR	DOWN	2	0.061	0.056	0.055	0.052	0.055	0.023	0.021	0.030	0.014	0.012

**Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)**

Metropolitan Statistical Area		Trend	#Trend Sites	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
<b>LAS VEGAS, NV-AZ</b>													
CO	2ND MAX 8-HOUR	DOWN	2	10.0	10.9	9.5	7.9	8.6	8.8	7.8	8.4	7.8	8.2
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.08	0.08	0.07	0.07	0.08	0.08	0.08	0.07	0.08	0.07
	2ND DAILY MAX 1-HOUR	DOWN	3	0.10	0.10	0.09	0.09	0.10	0.09	0.09	0.09	0.09	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	60	69	59	48	43	47	47	53	60	60
	90TH PERCENTILE	NS	1	107	127	88	76	75	67	77	82	90	90
<b>LAWRENCE, MA-NH</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.07	0.09	0.07	0.08	0.08	0.07	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.11	0.09	0.12	0.09	0.10	0.10	0.08	0.09	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	21	21	18	19	18	16	13	14	15	15
	90TH PERCENTILE	NS	1	32	32	30	32	36	32	24	22	25	28
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.009	0.008	0.007	0.008	0.008	0.006	0.006	0.005	0.005	0.006
	2ND MAX 24-HOUR	DOWN	2	0.036	0.029	0.026	0.027	0.026	0.027	0.025	0.019	0.020	0.021
<b>LAWTON, OK</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	32	30	27	26	27	28	25	28	26	26
	90TH PERCENTILE	NS	1	53	51	43	41	35	43	44	44	48	48
<b>LEWISTON-AUBURN, ME</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	25	25	29	24	24	20	20	20	21	18
	90TH PERCENTILE	DOWN	1	41	41	50	43	49	35	37	31	35	31
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.008	0.007	0.006	0.005	0.007	0.006	0.004	0.004	0.004	0.004
	2ND MAX 24-HOUR	DOWN	1	0.035	0.027	0.023	0.020	0.025	0.025	0.020	0.018	0.017	0.019
<b>LEXINGTON, KY</b>													
CO	2ND MAX 8-HOUR	NS	1	5.6	3.7	4.9	3.8	6.5	4.2	3.0	3.1	5.2	5.2
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.019	0.017	0.016	0.016	0.017	0.016	0.017	0.014	0.014	0.011
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.09	0.09	0.08	0.08	0.06	0.08	0.09	0.08	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.11	0.10	0.09	0.08	0.10	0.10	0.11	0.09	0.09	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	31	29	29	25	24	28	25	24	22	23
	90TH PERCENTILE	DOWN	3	50	48	46	40	42	46	40	39	37	39
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.006	0.006	0.008	0.007	0.007	0.008	0.006	0.006	0.006	0.006
	2ND MAX 24-HOUR	NS	1	0.034	0.020	0.025	0.030	0.026	0.037	0.016	0.020	0.016	0.023
<b>LIMA, OH</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.08	0.09	0.08	0.09	0.09	0.09	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.09	0.10
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.006	0.005	0.006	0.004	0.005	0.004	0.003	0.003	0.003	0.003
	2ND MAX 24-HOUR	NS	1	0.033	0.026	0.021	0.020	0.023	0.036	0.015	0.015	0.016	0.017
<b>LINCOLN, NE</b>													
CO	2ND MAX 8-HOUR	NS	2	6.1	6.2	7.4	4.5	4.3	4.0	4.9	3.4	5.0	4.3
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.06	0.06	0.06	0.06	0.07	0.05	0.06	0.06	0.05	0.05
	2ND DAILY MAX 1-HOUR	NS	1	0.06	0.07	0.07	0.07	0.06	0.08	0.07	0.06	0.06	0.07
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	33	29	30	25	26	28	25	28	24	26
	90TH PERCENTILE	DOWN	2	51	49	53	42	38	46	45	44	39	40
<b>LITTLE ROCK-NORTH LITTLE ROCK, AR</b>													
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.009	0.009	0.009	0.012	0.009	0.011	0.011	0.011	0.010	0.011
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.09	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.09	0.10	0.10	0.09	0.10	0.09	0.11	0.10	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	4	29	29	25	28	27	27	29	26	25	25
	90TH PERCENTILE	NS	4	49	49	43	47	44	47	50	41	42	42
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.002	0.003	0.003	0.005	0.006	0.003	0.002	0.002	0.002	0.002
	2ND MAX 24-HOUR	DOWN	1	0.010	0.014	0.012	0.012	0.017	0.009	0.008	0.009	0.006	0.006
<b>LONGVIEW-MARSHALL, TX</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.09	0.08	0.08	0.09	0.08	0.10	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.13	0.11	0.10	0.11	0.10	0.15	0.11	0.12	0.13
<b>LOS ANGELES-LONG BEACH, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	13	9.6	9.0	8.8	7.8	6.8	8.0	7.5	6.8	6.6	6.1
LEAD	MAX QUARTERLY MEAN	DOWN	6	0.09	0.09	0.10	0.08	0.06	0.06	0.05	0.05	0.05	0.04
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	13	0.044	0.041	0.041	0.038	0.036	0.039	0.038	0.035	0.033	0.033
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	14	0.14	0.14	0.12	0.13	0.13	0.12	0.11	0.11	0.10	0.09
	2ND DAILY MAX 1-HOUR	DOWN	14	0.22	0.19	0.19	0.20	0.17	0.17	0.15	0.14	0.12	0.15
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	9	57	49	53	41	40	39	39	38	39	33
	90TH PERCENTILE	DOWN	9	88	78	80	64	65	59	64	61	57	55
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.004	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.003
	2ND MAX 24-HOUR	DOWN	4	0.015	0.012	0.013	0.015	0.011	0.008	0.008	0.008	0.007	0.009
<b>LOUISVILLE, KY-IN</b>													
CO	2ND MAX 8-HOUR	DOWN	4	6.0	5.9	5.9	5.2	5.4	5.9	4.4	3.9	5.0	4.4
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.05	0.04	0.05	0.05	0.05	0.02	0.05	0.02	0.02	0.02
O <sub>3</sub>	4TH MAX 8-HOUR	NS	4	0.08	0.08	0.08	0.09	0.07	0.09	0.09	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	4	0.11	0.11	0.12	0.09	0.13	0.12	0.12	0.11	0.12	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	6	35	34	33	30	29	30	29	26	29	26
	90TH PERCENTILE	DOWN	6	59	56	51	48	51	47	46	44	48	42
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.010	0.010	0.010	0.009	0.010	0.010	0.008	0.007	0.006	0.007
	2ND MAX 24-HOUR	DOWN	4	0.055	0.041	0.037	0.034	0.035	0.040	0.028	0.031	0.031	0.033

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area		Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>LOWELL, MA-NH</b>													
CO	2ND MAX 8-HOUR	NS	1	5.3	7.3	5.8	5.9	5.1	6.5	7.8	4.5	3.6	3.4
<b>LUBBOCK, TX</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	34	24	25	22	20	23	21	22	17	17
	90TH PERCENTILE	DOWN	1	55	36	39	34	30	33	34	34	27	27
<b>LYNCHBURG, VA</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	30	24	28	24	26	23	24	23	23	21
	90TH PERCENTILE	NS	1	47	43	41	39	44	33	49	36	37	33
<b>MADISON, WI</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	34	24	25	22	21	22	23	20	20	27
	90TH PERCENTILE	NS	1	58	36	38	32	36	33	43	30	34	43
<b>MANCHESTER, NH</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	24	20	20	18	18	15	14	16	19	17
	90TH PERCENTILE	DOWN	2	36	34	38	31	37	34	26	28	29	28
<b>MANSFIELD, OH</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	27	27	27	26	28	29	25	24	23	24
	90TH PERCENTILE	NS	1	42	42	40	39	44	49	42	40	39	41
<b>MEDFORD-ASHLAND, OR</b>													
CO	2ND MAX 8-HOUR	DOWN	1	11.0	8.2	8.1	6.4	6.9	6.2	5.3	6.4	5.7	5.2
LEAD	MAX QUARTERLY MEAN	NS	1	0.04	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.03
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	4	45	35	34	31	30	28	22	21	23	21
	90TH PERCENTILE	DOWN	4	94	67	62	52	53	47	36	35	36	33
<b>MELBOURNE-TITUSVILLE-PALM BAY, FL</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	2	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	2	0.10	0.08	0.09	0.08	0.09	0.09	0.08	0.09	0.09	0.09
<b>MEMPHIS, TN-AR-MS</b>													
CO	2ND MAX 8-HOUR	DOWN	5	8.2	7.5	6.1	7.7	7.6	7.3	6.0	5.3	5.0	4.9
LEAD	MAX QUARTERLY MEAN	NS	4	1.08	1.04	0.79	1.00	1.05	1.03	0.65	1.04	0.59	0.93
NO <sub>2</sub>	ARITHMETIC MEAN	UP	1	0.026	0.023	0.024	0.026	0.026	0.027	0.027	0.024	0.028	0.029
O <sub>3</sub>	4TH MAX 8-HOUR	NS	4	0.08	0.08	0.09	0.08	0.08	0.08	0.09	0.10	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	4	0.11	0.11	0.11	0.10	0.11	0.11	0.13	0.12	0.12	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	31	31	27	28	29	27	27	27	26	25
	90TH PERCENTILE	NS	2	42	50	45	44	49	43	45	40	44	41
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.007	0.007	0.007	0.007	0.006	0.005	0.004	0.003	0.003	0.003
	2ND MAX 24-HOUR	DOWN	2	0.029	0.027	0.025	0.031	0.029	0.025	0.019	0.011	0.011	0.011
<b>MERCED, CA</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	52	53	52	46	43	39	39	31	31	31
	90TH PERCENTILE	DOWN	1	102	95	106	75	86	55	77	50	50	50
<b>MIAMI, FL</b>													
CO	2ND MAX 8-HOUR	DOWN	2	7.3	6.0	7.2	6.2	5.3	4.4	4.9	4.5	3.8	3.1
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.08	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.013	0.011	0.011	0.011	0.012	0.010	0.011	0.011	0.012	0.011
O <sub>3</sub>	4TH MAX 8-HOUR	NS	4	0.08	0.08	0.07	0.06	0.07	0.08	0.07	0.07	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	4	0.11	0.10	0.09	0.10	0.10	0.09	0.09	0.09	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	27	28	26	27	27	26	24	25	23	26
	90TH PERCENTILE	DOWN	3	39	37	37	39	36	35	31	37	31	36
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.001	0.001
	2ND MAX 24-HOUR	NS	1	0.003	0.003	0.003	0.005	0.004	0.004	0.004	0.005	0.004	0.004
<b>MIDDLESEX-SOMERSET-HUNTERDON, NJ</b>													
CO	2ND MAX 8-HOUR	DOWN	1	5.4	5.4	4.2	3.9	3.7	4.3	5.3	3.3	3.8	3.0
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.38	0.30	1.15	1.22	0.33	0.12	0.07	0.06	0.08	0.08
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.10	0.10	0.11	0.11	0.09	0.10	0.09	0.10	0.09	0.10
	2ND DAILY MAX 1-HOUR	DOWN	1	0.13	0.14	0.12	0.12	0.12	0.11	0.12	0.11	0.12	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	34	29	30	25	25	27	22	25	25	25
	90TH PERCENTILE	DOWN	1	59	46	45	38	43	44	35	41	41	41
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.010	0.007	0.007	0.006	0.005	0.005	0.004	0.005	0.005	0.005
	2ND MAX 24-HOUR	DOWN	1	0.037	0.032	0.025	0.026	0.018	0.028	0.018	0.024	0.019	0.018
<b>MILWAUKEE-WAUKESHA, WI</b>													
CO	2ND MAX 8-HOUR	DOWN	5	3.9	4.5	3.7	3.2	4.0	4.5	3.0	1.9	2.0	2.1
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.06	0.08	0.06	0.05	0.04	0.03	0.05	0.03	0.03	0.03
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.020	0.019	0.018	0.018	0.017	0.017	0.017	0.017	0.016	0.016
O <sub>3</sub>	4TH MAX 8-HOUR	NS	8	0.10	0.10	0.08	0.09	0.08	0.08	0.08	0.10	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	8	0.13	0.11	0.14	0.10	0.10	0.12	0.11	0.10	0.12	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	4	35	33	29	26	26	28	27	25	24	27
	90TH PERCENTILE	DOWN	4	57	57	49	41	45	42	49	38	38	41
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.005	0.006	0.005	0.004	0.003	0.004	0.004	0.004	0.004	0.004
	2ND MAX 24-HOUR	NS	1	0.027	0.040	0.029	0.023	0.018	0.032	0.025	0.028	0.028	0.022

**Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)**

Metropolitan Statistical Area	Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
<b>MINNEAPOLIS-ST. PAUL, MN-WI</b>													
CO	2ND MAX 8-HOUR	DOWN	3	9.0	6.5	7.2	5.9	5.2	6.4	6.0	5.1	4.5	4.9
LEAD	MAX QUARTERLY MEAN	DOWN	3	0.38	0.77	0.31	0.25	0.12	0.07	0.23	0.12	0.09	0.06
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.017	0.017	0.016	0.016	0.018	0.019	0.017	0.019	0.017	0.018
O <sub>3</sub>	4TH MAX 8-HOUR	NS	4	0.07	0.07	0.07	0.07	0.08	0.06	0.07	0.08	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	4	0.09	0.09	0.08	0.09	0.08	0.08	0.10	0.09	0.09	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	8	28	26	25	21	21	21	22	21	21	22
	90TH PERCENTILE	DOWN	8	46	42	40	36	33	33	38	34	32	36
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	8	0.004	0.004	0.004	0.003	0.003	0.003	0.002	0.002	0.002	0.002
	2ND MAX 24-HOUR	DOWN	8	0.021	0.020	0.021	0.019	0.015	0.014	0.012	0.013	0.013	0.011
<b>MOBILE, AL</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.07	0.07	0.08	0.05	0.07	0.07	0.07	0.08	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.09	0.10	0.07	0.10	0.09	0.09	0.11	0.10	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	4	31	31	32	34	32	31	29	25	26	30
	90TH PERCENTILE	NS	4	42	49	49	51	51	51	43	40	45	47
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.008	0.008	0.009	0.010	0.010	0.011	0.009	0.009	0.008	0.009
	2ND MAX 24-HOUR	NS	1	0.064	0.038	0.050	0.054	0.066	0.052	0.053	0.070	0.049	0.073
<b>MODESTO, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	1	11.8	10.5	9.4	5.9	6.6	6.3	5.4	5.6	4.2	5.4
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.04	0.04	0.04	0.02	0.02	0.02	0.01	0.01	0.01	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.027	0.026	0.024	0.022	0.024	0.023	0.022	0.022	0.021	0.020
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.10	0.09	0.08	0.09	0.09	0.10	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.11	0.12	0.11	0.11	0.11	0.12	0.13	0.13	0.11	0.13
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	46	44	48	39	40	37	34	28	30	23
	90TH PERCENTILE	DOWN	2	91	85	101	69	72	54	68	41	48	38
<b>MONMOUTH-OCEAN, NJ</b>													
CO	2ND MAX 8-HOUR	DOWN	2	6.1	5.7	5.5	4.7	5.3	4.9	3.8	4.4	3.7	3.0
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.11	0.11	0.11	0.11	0.09	0.10	0.08	0.11	0.09	0.10
	2ND DAILY MAX 1-HOUR	DOWN	1	0.14	0.14	0.15	0.14	0.13	0.11	0.15	0.12	0.13	0.13
<b>MONTGOMERY, AL</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.08	0.07	0.08	0.09	0.08	0.09	0.08	0.07
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.10	0.09	0.10	0.11	0.10	0.10	0.10	0.09	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	23	27	26	24	23	25	26	23	24	28
	90TH PERCENTILE	NS	1	35	41	44	39	34	36	43	37	40	39
<b>NASHUA, NH</b>													
CO	2ND MAX 8-HOUR	NS	2	6.2	7.1	6.9	6.8	5.2	7.5	6.8	7.7	4.7	4.5
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.022	0.019	0.016	0.015	0.016	0.015	0.014	0.019	0.016	0.015
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.07	0.07	0.08	0.09	0.08	0.08	0.08	0.08	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	2	0.09	0.10	0.10	0.10	0.11	0.10	0.10	0.10	0.11	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	3	20	18	19	17	16	14	13	16	17	18
	90TH PERCENTILE	NS	3	34	32	34	29	28	31	25	29	29	30
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	3	0.008	0.007	0.005	0.006	0.006	0.006	0.005	0.005	0.006	0.005
	2ND MAX 24-HOUR	DOWN	3	0.040	0.036	0.024	0.025	0.022	0.028	0.023	0.021	0.025	0.019
<b>NASHVILLE, TN</b>													
CO	2ND MAX 8-HOUR	DOWN	3	7.4	5.9	5.0	5.5	6.4	5.4	4.8	3.9	4.7	4.4
LEAD	MAX QUARTERLY MEAN	NS	5	0.63	1.26	1.06	0.99	0.89	0.93	1.78	0.57	0.63	0.74
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.012	0.012	0.010	0.014	0.012	0.020	0.014	0.012	0.012	0.011
O <sub>3</sub>	4TH MAX 8-HOUR	UP	7	0.08	0.08	0.09	0.08	0.08	0.08	0.08	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	UP	7	0.10	0.11	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	6	37	36	35	31	31	30	31	28	28	28
	90TH PERCENTILE	DOWN	6	58	57	52	48	47	51	50	43	47	45
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.011	0.013	0.012	0.008	0.010	0.007	0.005	0.006	0.006	0.005
	2ND MAX 24-HOUR	NS	3	0.062	0.058	0.062	0.023	0.047	0.034	0.026	0.041	0.048	0.032
<b>NASSAU-SUFFOLK, NY</b>													
CO	2ND MAX 8-HOUR	DOWN	1	6.5	7.2	6.6	5.6	5.6	5.4	5.0	4.9	4.7	4.0
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.029	0.028	0.029	0.026	0.026	0.028	0.025	0.026	0.025	0.022
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.11	0.11	0.11	0.11	0.09	0.10	0.09	0.11	0.09	0.11
	2ND DAILY MAX 1-HOUR	NS	1	0.15	0.14	0.18	0.13	0.13	0.13	0.15	0.12	0.14	0.14
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	27	27	27	22	23	23	19	18	20	18
	90TH PERCENTILE	DOWN	2	54	54	54	38	42	39	33	29	34	30
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.010	0.009	0.009	0.008	0.008	0.007	0.005	0.007	0.006	0.006
	2ND MAX 24-HOUR	DOWN	2	0.045	0.045	0.039	0.039	0.033	0.037	0.030	0.028	0.029	0.028
<b>NEW BEDFORD, MA</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.10	0.10	0.09	0.07	0.08	0.11	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.12	0.13	0.13	0.11	0.09	0.10	0.14	0.12	0.12	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	23	23	20	17	17	19	14	16	18	16
	90TH PERCENTILE	NS	1	34	34	35	29	24	37	21	27	29	25

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area	Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
<b>NEW HAVEN-MERIDEN, CT</b>													
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.028	0.027	0.028	0.025	0.027	0.030	0.025	0.026	0.024	0.027
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.10	0.10	0.10	0.12	0.08	0.09	0.09	0.10	0.08	0.10
	2ND DAILY MAX 1-HOUR	NS	2	0.15	0.13	0.16	0.12	0.14	0.14	0.14	0.11	0.14	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	6	32	30	33	27	29	29	24	22	23	23
	90TH PERCENTILE	DOWN	6	51	49	58	46	51	52	41	36	36	36
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.012	0.010	0.010	0.009	0.008	0.008	0.006	0.006	0.005	0.005
	2ND MAX 24-HOUR	DOWN	2	0.071	0.045	0.055	0.042	0.038	0.049	0.031	0.027	0.028	0.028
<b>NEW LONDON-NORWICH, CT-RI</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.12	0.12	0.11	0.11	0.09	0.10	0.09	0.10	0.10	0.11
	2ND DAILY MAX 1-HOUR	NS	1	0.14	0.16	0.14	0.12	0.13	0.12	0.14	0.12	0.15	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	23	21	24	20	18	22	17	19	18	17
	90TH PERCENTILE	DOWN	2	39	35	40	32	31	39	29	31	29	28
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.008	0.008	0.007	0.006	0.006	0.005	0.005	0.005	0.004	0.004
	2ND MAX 24-HOUR	DOWN	1	0.027	0.029	0.027	0.025	0.019	0.029	0.017	0.016	0.022	0.018
<b>NEW ORLEANS, LA</b>													
CO	2ND MAX 8-HOUR	DOWN	2	6.1	4.9	4.2	5.4	5.1	4.6	3.6	4.0	3.3	3.2
LEAD	MAX QUARTERLY MEAN	NS	1	0.09	0.05	0.03	0.03	0.02	0.02	0.03	0.02	0.02	0.02
NO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.017	0.016	0.015	0.017	0.016	0.015	0.016	0.015	0.014	0.016
O <sub>3</sub>	4TH MAX 8-HOUR	NS	6	0.08	0.08	0.08	0.07	0.08	0.08	0.08	0.08	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	6	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.10	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	31	27	26	27	25	25	24	22	25	25
	90TH PERCENTILE	DOWN	1	49	44	48	39	42	40	37	31	36	36
SO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.003	0.003	0.004	0.005	0.005	0.005	0.005	0.005	0.004	0.004
	2ND MAX 24-HOUR	NS	2	0.017	0.013	0.023	0.018	0.019	0.021	0.019	0.025	0.016	0.020
<b>NEW YORK, NY</b>													
CO	2ND MAX 8-HOUR	DOWN	5	7.7	7.1	6.7	6.1	5.3	5.9	6.5	4.6	3.6	3.7
LEAD	MAX QUARTERLY MEAN	NS	1	0.12	0.16	0.12	0.11	0.16	0.14	0.12	0.16	0.16	0.14
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.044	0.043	0.043	0.037	0.040	0.042	0.039	0.039	0.038	0.038
O <sub>3</sub>	4TH MAX 8-HOUR	NS	5	0.09	0.09	0.10	0.11	0.08	0.09	0.09	0.10	0.09	0.10
	2ND DAILY MAX 1-HOUR	NS	5	0.12	0.13	0.14	0.12	0.12	0.12	0.12	0.12	0.13	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	12	34	31	29	26	25	28	25	26	26	25
	90TH PERCENTILE	NS	12	56	52	46	41	41	47	41	40	41	41
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	7	0.015	0.014	0.014	0.013	0.012	0.013	0.010	0.010	0.009	0.008
	2ND MAX 24-HOUR	DOWN	7	0.060	0.054	0.048	0.051	0.039	0.054	0.038	0.040	0.033	0.030
<b>NEWARK, NJ</b>													
CO	2ND MAX 8-HOUR	DOWN	3	7.6	7.1	8.3	5.6	4.9	7.7	6.0	5.1	4.6	3.7
NO <sub>2</sub>	ARITHMETIC MEAN	NS	4	0.030	0.029	0.028	0.030	0.028	0.030	0.028	0.029	0.028	0.029
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.09	0.09	0.10	0.10	0.09	0.09	0.09	0.10	0.09	0.10
	2ND DAILY MAX 1-HOUR	NS	2	0.12	0.13	0.12	0.10	0.12	0.11	0.12	0.11	0.11	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	3	35	31	30	29	30	35	28	31	31	31
	90TH PERCENTILE	NS	3	59	55	52	44	52	57	46	49	49	49
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.012	0.010	0.010	0.009	0.007	0.008	0.006	0.006	0.006	0.006
	2ND MAX 24-HOUR	DOWN	4	0.047	0.040	0.035	0.040	0.025	0.033	0.025	0.027	0.023	0.021
<b>NEWBURGH, NY-PA</b>													
LEAD	MAX QUARTERLY MEAN	DOWN	2	1.42	1.01	0.66	0.58	0.34	0.08	0.08	0.06	0.20	0.10
<b>NORFOLK-VIRGINIA BEACH-NEWPORT NEWS, VA-N</b>													
CO	2ND MAX 8-HOUR	NS	3	5.2	4.5	5.1	4.3	5.0	5.4	4.3	4.3	4.0	4.6
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.020	0.019	0.020	0.020	0.021	0.019	0.018	0.018	0.019	0.019
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.08	0.08	0.09	0.08	0.09	0.09	0.08	0.08	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	3	0.10	0.10	0.10	0.13	0.12	0.10	0.11	0.09	0.11	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	27	26	26	22	23	20	20	21	22	22
	90TH PERCENTILE	DOWN	3	43	38	42	37	40	31	34	32	34	34
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.007	0.007	0.007	0.006	0.007	0.007	0.006	0.006	0.006	0.006
	2ND MAX 24-HOUR	DOWN	2	0.033	0.025	0.022	0.024	0.026	0.024	0.022	0.022	0.025	0.020
<b>OAKLAND, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	6	4.9	4.8	4.8	4.0	3.4	3.6	2.7	2.9	2.9	2.9
LEAD	MAX QUARTERLY MEAN	DOWN	4	0.13	0.08	0.10	0.02	0.02	0.02	0.02	0.01	0.01	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.022	0.021	0.022	0.020	0.020	0.020	0.019	0.018	0.017	0.018
O <sub>3</sub>	4TH MAX 8-HOUR	NS	8	0.07	0.07	0.06	0.06	0.06	0.07	0.06	0.08	0.07	0.06
	2ND DAILY MAX 1-HOUR	NS	8	0.10	0.09	0.09	0.09	0.11	0.10	0.13	0.10	0.09	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	4	32	31	33	27	24	24	21	22	21	19
	90TH PERCENTILE	DOWN	4	56	56	63	43	41	38	36	34	33	30
SO <sub>2</sub>	ARITHMETIC MEAN	NS	3	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	2ND MAX 24-HOUR	DOWN	3	0.013	0.011	0.010	0.009	0.010	0.007	0.007	0.007	0.008	0.009
<b>OKLAHOMA CITY, OK</b>													
CO	2ND MAX 8-HOUR	DOWN	2	5.2	4.5	3.9	4.3	5.2	4.3	3.8	4.0	4.0	3.4
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.04	0.04	0.04	0.03	0.02	0.01	0.02	0.01	0.00	0.00
NO <sub>2</sub>	ARITHMETIC MEAN	NS	3	0.013	0.012	0.011	0.011	0.011	0.012	0.012	0.012	0.013	0.012
O <sub>3</sub>	4TH MAX 8-HOUR	NS	4	0.08	0.08	0.08	0.08	0.07	0.07	0.08	0.09	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	4	0.10	0.10	0.10	0.09	0.09	0.09	0.11	0.09	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	4	23	22	22	22	21	21	21	24	22	22
	90TH PERCENTILE	NS	4	38	36	35	34	34	34	38	39	39	39

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area		Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>OLYMPIA, WA</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	28	24	25	24	24	17	17	16	16	14
	90TH PERCENTILE	DOWN	1	74	44	43	42	49	30	35	30	36	22
<b>OMAHA, NE-IA</b>													
CO	2ND MAX 8-HOUR	NS	2	4.8	5.2	5.8	5.9	5.3	4.0	5.5	4.9	4.2	5.3
LEAD	MAX QUARTERLY MEAN	NS	6	0.94	0.84	0.75	1.33	1.29	1.68	1.03	1.00	0.35	0.05
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	3	0.07	0.07	0.06	0.06	0.06	0.05	0.06	0.06	0.06	0.06
	2ND DAILY MAX 1-HOUR	NS	3	0.08	0.07	0.08	0.08	0.06	0.07	0.08	0.07	0.07	0.08
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	7	42	37	36	36	31	33	30	33	33	34
	90TH PERCENTILE	NS	7	64	63	59	62	48	52	52	49	52	60
<b>ORANGE COUNTY, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	4	9.0	8.3	7.0	7.5	5.8	7.3	5.7	5.8	4.8	5.0
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	3	0.038	0.039	0.038	0.034	0.032	0.034	0.033	0.029	0.028	0.029
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	4	0.12	0.12	0.11	0.10	0.10	0.09	0.10	0.08	0.08	0.07
	2ND DAILY MAX 1-HOUR	DOWN	4	0.21	0.17	0.18	0.17	0.15	0.16	0.12	0.12	0.11	0.14
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	45	45	41	37	36	36	41	33	37	33
	90TH PERCENTILE	DOWN	2	72	75	68	53	57	54	68	47	50	52
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.001	0.001	0.002
	2ND MAX 24-HOUR	DOWN	1	0.008	0.008	0.007	0.008	0.006	0.005	0.005	0.004	0.006	0.005
<b>ORLANDO, FL</b>													
CO	2ND MAX 8-HOUR	DOWN	2	4.3	4.5	3.6	3.9	3.8	3.6	3.3	3.3	3.6	3.0
LEAD	MAX QUARTERLY MEAN	NS	2	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.013	0.012	0.012	0.011	0.012	0.011	0.010	0.013	0.013	0.011
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	3	0.09	0.09	0.08	0.07	0.08	0.08	0.08	0.08	0.07	0.08
	2ND DAILY MAX 1-HOUR	NS	3	0.11	0.11	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	3	27	27	27	24	24	23	22	23	23	24
	90TH PERCENTILE	NS	3	36	37	35	36	33	31	32	33	33	35
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	2ND MAX 24-HOUR	NS	1	0.006	0.011	0.007	0.007	0.011	0.012	0.006	0.008	0.006	0.007
<b>OWENSBORO, KY</b>													
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.014	0.011	0.011	0.012	0.012	0.012	0.013	0.011	0.012	0.013
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.09	0.08	0.08	0.08	0.09	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.11	0.09	0.09	0.11	0.11	0.11	0.11	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	31	29	29	27	25	29	27	24	24	25
	90TH PERCENTILE	DOWN	3	49	45	45	45	45	45	48	41	42	43
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.010	0.009	0.009	0.009	0.009	0.009	0.007	0.007	0.007	0.007
	2ND MAX 24-HOUR	DOWN	1	0.053	0.038	0.044	0.053	0.050	0.035	0.028	0.020	0.027	0.023
<b>PARKERSBURG-MARIETTA, WV-OH</b>													
LEAD	MAX QUARTERLY MEAN	NS	1	0.04	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.01
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.09	0.09	0.08	0.10	0.08	0.09	0.09	0.10	0.09	0.08
	2ND DAILY MAX 1-HOUR	DOWN	2	0.12	0.11	0.12	0.16	0.11	0.11	0.12	0.11	0.11	0.11
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.016	0.014	0.014	0.014	0.014	0.017	0.010	0.010	0.010	0.013
	2ND MAX 24-HOUR	NS	1	0.076	0.064	0.060	0.059	0.065	0.084	0.041	0.046	0.052	0.089
<b>PENSACOLA, FL</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.09	0.08	0.09	0.08	0.09	0.08	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	2	0.09	0.11	0.10	0.10	0.10	0.11	0.12	0.10	0.11	0.12
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.007	0.008	0.006	0.007	0.005	0.004	0.003	0.003	0.004	0.004
	2ND MAX 24-HOUR	DOWN	1	0.057	0.078	0.056	0.057	0.032	0.039	0.019	0.015	0.028	0.022
<b>PEORIA-PEKIN, IL</b>													
CO	2ND MAX 8-HOUR	DOWN	1	7.7	7.4	6.3	7.2	7.3	5.7	5.6	4.6	4.7	5.8
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.04	0.04	0.02	0.02	0.03	0.02	0.03	0.02	0.02	0.02
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.07	0.08	0.07	0.06	0.08	0.08	0.08	0.07
	2ND DAILY MAX 1-HOUR	NS	2	0.10	0.08	0.10	0.09	0.08	0.09	0.09	0.09	0.09	0.08
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	2	28	27	26	28	22	23	22	22	26	26
	90TH PERCENTILE	DOWN	2	46	45	43	45	37	41	40	34	40	41
SO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.007	0.007	0.008	0.007	0.007	0.007	0.007	0.007	0.007	0.007
	2ND MAX 24-HOUR	NS	2	0.046	0.055	0.065	0.043	0.039	0.049	0.084	0.045	0.042	0.041
<b>PHILADELPHIA, PA-NJ</b>													
CO	2ND MAX 8-HOUR	DOWN	9	7.1	4.9	4.6	4.7	4.7	5.2	4.1	4.2	3.3	3.1
LEAD	MAX QUARTERLY MEAN	NS	11	1.25	1.63	1.69	2.12	2.18	2.49	1.56	1.68	1.33	0.26
NO <sub>2</sub>	ARITHMETIC MEAN	NS	7	0.027	0.025	0.025	0.025	0.025	0.026	0.025	0.026	0.025	0.025
O <sub>3</sub>	4TH MAX 8-HOUR	NS	8	0.10	0.10	0.10	0.11	0.09	0.10	0.09	0.11	0.09	0.10
	2ND DAILY MAX 1-HOUR	NS	8	0.13	0.13	0.14	0.11	0.13	0.12	0.13	0.12	0.13	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	6	35	32	35	29	30	33	30	30	30	29
	90TH PERCENTILE	NS	6	60	57	60	45	51	57	52	47	53	48
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	13	0.011	0.010	0.009	0.008	0.008	0.009	0.007	0.007	0.007	0.006
	2ND MAX 24-HOUR	DOWN	13	0.043	0.039	0.034	0.034	0.031	0.040	0.028	0.026	0.027	0.024

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area	Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
<b>PHOENIX-MESA, AZ</b>													
CO	2ND MAX 8-HOUR	DOWN	8	7.6	6.7	6.2	6.5	6.0	6.3	6.2	5.7	5.1	5.3
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.09	0.09	0.11	0.06	0.05	0.05	0.06	0.04	0.02	0.02
O <sub>3</sub>	4TH MAX 8-HOUR	UP	8	0.07	0.07	0.08	0.07	0.08	0.08	0.08	0.09	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	8	0.10	0.11	0.10	0.11	0.11	0.11	0.12	0.11	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	8	49	43	43	40	41	40	41	41	46	38
	90TH PERCENTILE	NS	8	73	66	66	63	61	62	65	61	70	63
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.002	0.003	0.005	0.004	0.003	0.003	0.002	0.003	0.004	0.004
	2ND MAX 24-HOUR	NS	1	0.006	0.011	0.013	0.010	0.009	0.009	0.008	0.017	0.009	0.011
<b>PINE BLUFF, AR</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	27	21	19	22	23	25	26	23	25	25
	90TH PERCENTILE	NS	1	44	39	30	38	39	39	56	39	41	41
<b>PITTSBURGH, PA</b>													
CO	2ND MAX 8-HOUR	DOWN	5	5.3	5.6	4.3	4.8	3.8	4.3	3.8	3.3	2.5	2.6
LEAD	MAX QUARTERLY MEAN	DOWN	4	0.12	0.09	0.09	0.07	0.07	0.08	0.06	0.04	0.05	0.04
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	5	0.023	0.023	0.023	0.022	0.022	0.023	0.021	0.021	0.020	0.022
O <sub>3</sub>	4TH MAX 8-HOUR	NS	8	0.09	0.09	0.08	0.09	0.07	0.09	0.09	0.10	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	8	0.11	0.10	0.11	0.09	0.11	0.11	0.12	0.11	0.12	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	13	35	33	34	30	29	33	29	28	29	28
	90TH PERCENTILE	DOWN	13	62	61	59	52	51	62	52	47	52	50
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	16	0.017	0.016	0.015	0.015	0.015	0.015	0.011	0.011	0.011	0.011
	2ND MAX 24-HOUR	DOWN	16	0.072	0.071	0.058	0.072	0.061	0.073	0.044	0.043	0.046	0.042
<b>PITTSFIELD, MA</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.09	0.09	0.09	0.08	0.07	0.07	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.09	0.11	0.10	0.11	0.11	0.09	0.09	0.11	0.09	0.08
<b>PONCE, PR</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	46	38	30	29	30	27	24	24	29	28
	90TH PERCENTILE	NS	1	73	60	47	49	53	38	33	35	47	51
<b>PORTLAND, ME</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.10	0.10	0.09	0.11	0.10	0.09	0.09	0.10	0.08	0.10
	2ND DAILY MAX 1-HOUR	NS	1	0.13	0.13	0.14	0.12	0.11	0.12	0.12	0.10	0.13	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	2	27	25	26	23	25	24	28	24	26	23
	90TH PERCENTILE	NS	2	44	39	44	38	44	43	50	36	43	39
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.010	0.010	0.009	0.008	0.009	0.008	0.006	0.005	0.005	0.005
	2ND MAX 24-HOUR	DOWN	1	0.039	0.034	0.032	0.029	0.032	0.043	0.022	0.021	0.023	0.025
<b>PORTLAND-VANCOUVER, OR-WA</b>													
CO	2ND MAX 8-HOUR	DOWN	2	8.2	8.5	9.1	7.0	6.3	7.0	5.7	6.1	5.4	5.1
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.07	0.06	0.06	0.05	0.06	0.04	0.03	0.02	0.04	0.05
O <sub>3</sub>	4TH MAX 8-HOUR	NS	4	0.06	0.06	0.08	0.06	0.07	0.06	0.06	0.07	0.09	0.06
	2ND DAILY MAX 1-HOUR	NS	4	0.09	0.12	0.09	0.10	0.09	0.09	0.10	0.12	0.08	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	6	25	25	26	23	25	23	20	20	21	19
	90TH PERCENTILE	DOWN	6	45	42	43	39	43	37	31	33	32	31
<b>PORTSMOUTH-ROCHESTER, NH-ME</b>													
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.015	0.015	0.015	0.013	0.014	0.013	0.012	0.013	0.013	0.012
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.09	0.09	0.08	0.10	0.09	0.09	0.09	0.09	0.08	0.10
	2ND DAILY MAX 1-HOUR	NS	2	0.12	0.11	0.14	0.11	0.11	0.11	0.12	0.10	0.13	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	21	20	19	19	18	14	15	16	17	18
	90TH PERCENTILE	DOWN	2	34	33	36	32	30	27	26	27	29	29
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.008	0.007	0.007	0.006	0.006	0.006	0.004	0.004	0.004	0.004
	2ND MAX 24-HOUR	DOWN	1	0.029	0.025	0.021	0.027	0.019	0.022	0.017	0.015	0.018	0.016
<b>PROVIDENCE-FALL RIVER-WARWICK, RI-MA</b>													
CO	2ND MAX 8-HOUR	NS	1	6.2	7.3	7.4	6.3	5.4	6.7	7.0	4.4	5.6	4.7
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.024	0.024	0.025	0.023	0.022	0.022	0.022	0.025	0.025	0.025
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.09	0.09	0.09	0.10	0.08	0.09	0.09	0.10	0.07	0.09
	2ND DAILY MAX 1-HOUR	DOWN	2	0.12	0.13	0.14	0.11	0.11	0.12	0.13	0.10	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	31	29	30	24	26	29	24	27	25	23
	90TH PERCENTILE	DOWN	3	48	44	48	40	43	49	38	41	38	36
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	5	0.010	0.009	0.008	0.009	0.008	0.007	0.005	0.006	0.006	0.005
	2ND MAX 24-HOUR	DOWN	5	0.043	0.039	0.039	0.044	0.036	0.035	0.022	0.030	0.030	0.029
<b>PROVO-OREM, UT</b>													
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.028	0.025	0.022	0.019	0.026	0.024	0.023	0.024	0.023	0.024
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.07
	2ND DAILY MAX 1-HOUR	NS	1	0.11	0.09	0.08	0.09	0.08	0.08	0.08	0.10	0.08	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	49	32	42	37	38	34	29	34	30	27
	90TH PERCENTILE	DOWN	3	95	55	91	68	71	56	49	57	50	47
<b>PUEBLO, CO</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	33	26	30	26	26	30	26	26	27	22
	90TH PERCENTILE	DOWN	1	55	43	46	46	38	45	45	42	41	33
<b>RACINE, WI</b>													
CO	2ND MAX 8-HOUR	DOWN	1	6.4	5.5	5.7	4.9	4.1	4.3	4.3	3.0	3.1	3.0
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.11	0.11	0.09	0.10	0.08	0.08	0.09	0.10	0.08	0.10
	2ND DAILY MAX 1-HOUR	NS	1	0.14	0.11	0.14	0.10	0.10	0.11	0.11	0.13	0.12	0.12

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area		Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>RALEIGH-DURHAM-CHAPEL HILL, NC</b>													
CO	2ND MAX 8-HOUR	DOWN	1	10.9	8.7	8.8	7.3	7.2	6.9	6.6	5.6	6.6	5.4
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.09	0.09	0.08	0.10	0.08	0.08	0.08	0.10
	2ND DAILY MAX 1-HOUR	NS	1	0.11	0.12	0.11	0.10	0.11	0.11	0.10	0.09	0.11	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	29	29	26	24	25	22	23	25	25	24
	90TH PERCENTILE	NS	2	46	45	41	36	39	31	34	39	39	40
<b>RAPID CITY, SD</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	2	26	27	28	25	23	29	24	23	25	24
	90TH PERCENTILE	NS	2	46	44	47	40	38	50	41	36	41	38
<b>READING, PA</b>													
CO	2ND MAX 8-HOUR	DOWN	1	5.0	6.4	4.6	4.6	3.8	5.4	3.9	3.4	3.0	3.0
LEAD	MAX QUARTERLY MEAN	DOWN	10	0.74	0.66	0.72	0.62	0.52	0.54	0.37	0.35	0.41	0.43
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.023	0.022	0.022	0.020	0.021	0.023	0.021	0.022	0.021	0.021
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.09	0.09	0.09	0.10	0.09	0.09	0.08	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	NS	2	0.11	0.11	0.12	0.10	0.11	0.10	0.11	0.11	0.11	0.11
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.011	0.010	0.010	0.009	0.009	0.011	0.009	0.009	0.009	0.009
	2ND MAX 24-HOUR	DOWN	2	0.042	0.035	0.034	0.033	0.033	0.040	0.033	0.036	0.030	0.024
<b>REDDING, CA</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.07	0.07	0.08	0.07	0.07	0.06	0.08	0.07	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	1	0.09	0.09	0.08	0.08	0.07	0.09	0.09	0.08	0.08	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	26	25	29	25	20	24	20	19	17	18
	90TH PERCENTILE	DOWN	1	44	42	56	45	37	39	34	32	30	30
<b>RENO, NV</b>													
CO	2ND MAX 8-HOUR	DOWN	5	7.3	7.0	7.5	5.9	5.0	6.0	4.4	5.2	5.0	4.7
O <sub>3</sub>	4TH MAX 8-HOUR	NS	4	0.07	0.07	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.06
	2ND DAILY MAX 1-HOUR	NS	4	0.10	0.11	0.09	0.08	0.09	0.09	0.08	0.09	0.08	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	6	42	44	36	36	40	36	32	29	32	31
	90TH PERCENTILE	DOWN	6	83	92	73	64	71	65	52	52	52	54
<b>RICHMOND-PETERSBURG, VA</b>													
CO	2ND MAX 8-HOUR	DOWN	2	4.0	4.4	3.7	2.5	3.9	3.4	2.6	2.9	3.2	2.8
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.025	0.023	0.024	0.023	0.024	0.024	0.022	0.022	0.021	0.021
O <sub>3</sub>	4TH MAX 8-HOUR	NS	4	0.08	0.08	0.08	0.09	0.09	0.10	0.09	0.09	0.08	0.10
	2ND DAILY MAX 1-HOUR	NS	4	0.11	0.11	0.11	0.12	0.12	0.11	0.11	0.10	0.12	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	28	25	26	22	23	21	23	24	22	22
	90TH PERCENTILE	NS	3	43	40	45	36	43	33	38	37	37	37
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.009	0.006	0.006	0.005	0.007	0.006	0.005	0.005	0.005	0.005
	2ND MAX 24-HOUR	NS	1	0.032	0.034	0.027	0.024	0.023	0.022	0.016	0.027	0.024	0.024
<b>RIVERSIDE-SAN BERNARDINO, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	7	5.1	4.4	5.1	3.6	3.5	3.5	3.4	2.9	3.1	2.9
LEAD	MAX QUARTERLY MEAN	NS	4	0.06	0.05	0.06	0.03	0.04	0.04	0.04	0.04	0.04	0.04
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	7	0.030	0.029	0.029	0.027	0.028	0.028	0.029	0.027	0.024	0.024
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	15	0.16	0.16	0.15	0.15	0.14	0.13	0.14	0.13	0.12	0.11
	2ND DAILY MAX 1-HOUR	DOWN	15	0.22	0.21	0.21	0.20	0.18	0.19	0.18	0.17	0.15	0.17
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	11	67	60	57	47	46	44	44	43	42	40
	90TH PERCENTILE	DOWN	11	102	94	88	76	78	68	71	66	64	65
SO <sub>2</sub>	ARITHMETIC MEAN	NS	4	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.001	0.002
	2ND MAX 24-HOUR	DOWN	4	0.013	0.006	0.008	0.009	0.006	0.004	0.005	0.004	0.004	0.007
<b>ROANOKE, VA</b>													
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.014	0.013	0.014	0.013	0.014	0.013	0.013	0.013	0.013	0.014
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.08	0.08	0.07	0.08	0.08	0.08	0.07	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.09	0.10	0.09	0.10	0.10	0.09	0.08	0.10	0.13
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	35	36	33	32	35	36	34	33	30	29
	90TH PERCENTILE	NS	2	55	58	51	48	56	55	54	58	52	49
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.005	0.004	0.004	0.004	0.004	0.004	0.003	0.003	0.003	0.003
	2ND MAX 24-HOUR	DOWN	1	0.022	0.018	0.019	0.016	0.018	0.011	0.010	0.014	0.013	0.009
<b>ROCHESTER, MN</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	30	28	23	21	20	21	20	19	20	21
	90TH PERCENTILE	DOWN	1	50	48	37	37	31	33	32	34	31	31
<b>ROCHESTER, NY</b>													
CO	2ND MAX 8-HOUR	NS	2	3.6	3.5	3.3	3.5	3.2	4.5	3.2	3.7	1.9	2.7
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.09	0.09	0.09	0.10	0.08	0.08	0.08	0.09	0.07	0.09
	2ND DAILY MAX 1-HOUR	NS	2	0.10	0.11	0.11	0.09	0.09	0.09	0.11	0.08	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	24	21	26	22	23	20	21	21	20	20
	90TH PERCENTILE	DOWN	2	42	38	49	38	40	33	37	35	33	36
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.013	0.012	0.011	0.011	0.010	0.011	0.010	0.009	0.008	0.009
	2ND MAX 24-HOUR	NS	2	0.054	0.040	0.043	0.039	0.041	0.043	0.038	0.033	0.038	0.053
<b>ROCKFORD, IL</b>													
CO	2ND MAX 8-HOUR	DOWN	1	6.6	6.5	5.1	4.6	4.3	4.0	4.5	3.2	3.7	3.6
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.07	0.09	0.04	0.06	0.03	0.04	0.03	0.05	0.03	0.04
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.07	0.08	0.08	0.07	0.08	0.09	0.08	0.07
	2ND DAILY MAX 1-HOUR	NS	2	0.09	0.09	0.09	0.09	0.08	0.10	0.10	0.09	0.08	0.08
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	25	25	22	21	16	19	19	18	26	24
	90TH PERCENTILE	NS	1	44	45	35	31	26	36	39	29	42	39

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area	Trend	#Trend Sites	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
<b>SACRAMENTO, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	6	9.0	8.9	8.2	6.2	6.4	6.2	5.2	4.9	4.5	4.5
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.07	0.10	0.04	0.02	0.05	0.02	0.02	0.01	0.01	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.019	0.018	0.016	0.016	0.017	0.015	0.015	0.015	0.014	0.015
O <sub>3</sub>	4TH MAX 8-HOUR	NS	6	0.08	0.08	0.09	0.10	0.10	0.09	0.09	0.10	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	6	0.12	0.13	0.13	0.13	0.12	0.11	0.13	0.12	0.11	0.13
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	42	42	42	31	29	30	29	25	23	23
	90TH PERCENTILE	DOWN	1	88	88	88	51	54	49	67	40	40	40
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.006	0.006	0.003	0.002	0.001	0.001	0.001	0.001	0.001	0.001
	2ND MAX 24-HOUR	DOWN	1	0.020	0.010	0.010	0.010	0.003	0.004	0.004	0.003	0.003	0.004
<b>ST. JOSEPH, MO</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	45	40	44	39	32	34	33	32	31	26
	90TH PERCENTILE	DOWN	1	78	71	79	70	56	62	67	52	57	47
<b>ST. LOUIS, MO-IL</b>													
CO	2ND MAX 8-HOUR	DOWN	8	4.9	4.3	4.3	3.5	3.5	3.8	3.3	3.4	3.2	3.4
LEAD	MAX QUARTERLY MEAN	DOWN	13	0.85	0.76	0.68	0.70	0.57	0.66	0.68	0.67	0.54	0.43
NO <sub>2</sub>	ARITHMETIC MEAN	NS	9	0.019	0.018	0.018	0.019	0.018	0.019	0.019	0.019	0.018	0.019
O <sub>3</sub>	4TH MAX 8-HOUR	NS	16	0.08	0.08	0.08	0.09	0.08	0.07	0.09	0.09	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	16	0.11	0.11	0.11	0.10	0.11	0.12	0.12	0.11	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	15	37	33	32	32	28	31	31	27	28	30
	90TH PERCENTILE	DOWN	15	61	54	48	51	46	50	51	43	45	49
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	16	0.012	0.011	0.010	0.009	0.009	0.009	0.008	0.008	0.007	0.006
	2ND MAX 24-HOUR	DOWN	16	0.054	0.042	0.041	0.038	0.040	0.040	0.037	0.038	0.034	0.034
<b>SALINAS, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	1	2.3	2.5	2.1	2.3	2.1	2.0	1.7	2.4	1.7	1.9
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.014	0.012	0.012	0.012	0.012	0.012	0.011	0.011	0.010	0.010
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	3	0.07	0.07	0.06	0.06	0.06	0.07	0.06	0.06	0.06	0.06
	2ND DAILY MAX 1-HOUR	DOWN	3	0.09	0.08	0.08	0.08	0.08	0.08	0.07	0.08	0.07	0.07
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	25	23	23	23	22	20	21	20	21	18
	90TH PERCENTILE	NS	1	37	39	33	34	35	29	43	34	31	29
<b>SALT LAKE CITY-OGDEN, UT</b>													
CO	2ND MAX 8-HOUR	DOWN	1	7.7	6.8	7.5	6.5	6.4	5.9	4.5	6.2	5.4	4.9
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.12	0.08	0.08	0.05	0.07	0.05	0.05	0.03	0.07	0.06
NO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.023	0.019	0.020	0.020	0.024	0.023	0.022	0.023	0.022	0.022
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.09	0.09	0.08	0.08	0.07	0.08	0.08	0.08	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.14	0.11	0.11	0.10	0.10	0.11	0.12	0.11	0.10	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	6	45	33	41	36	37	32	29	33	29	27
	90TH PERCENTILE	DOWN	6	91	56	89	74	68	53	49	61	49	46
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	3	0.011	0.009	0.010	0.009	0.007	0.004	0.003	0.003	0.003	0.003
	2ND MAX 24-HOUR	DOWN	3	0.081	0.039	0.051	0.046	0.043	0.013	0.013	0.014	0.008	0.008
<b>SAN ANTONIO, TX</b>													
CO	2ND MAX 8-HOUR	NS	2	6.3	5.4	4.6	4.7	5.1	3.5	3.8	4.8	4.7	4.8
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.04	0.07	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.08	0.08	0.07	0.08	0.09	0.09	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.11	0.10	0.11	0.10	0.11	0.11	0.12	0.12	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	28	25	25	25	23	23	21	19	19	19
	90TH PERCENTILE	DOWN	3	42	40	38	41	40	38	33	27	28	28
<b>SAN DIEGO, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	8	6.3	5.6	5.3	5.0	4.4	4.7	4.2	4.3	3.8	3.5
LEAD	MAX QUARTERLY MEAN	DOWN	3	0.08	0.09	0.04	0.03	0.03	0.02	0.03	0.02	0.02	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	7	0.027	0.025	0.025	0.024	0.020	0.021	0.021	0.019	0.019	0.018
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	9	0.11	0.11	0.11	0.10	0.09	0.09	0.08	0.08	0.08	0.08
	2ND DAILY MAX 1-HOUR	DOWN	9	0.16	0.15	0.15	0.14	0.13	0.11	0.12	0.10	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	39	34	37	32	30	31	32	28	27	23
	90TH PERCENTILE	DOWN	3	57	54	54	44	46	42	46	38	38	36
SO <sub>2</sub>	ARITHMETIC MEAN	NS	3	0.004	0.004	0.003	0.004	0.002	0.003	0.003	0.004	0.003	0.003
	2ND MAX 24-HOUR	NS	3	0.015	0.015	0.017	0.017	0.009	0.013	0.012	0.015	0.012	0.011
<b>SAN FRANCISCO, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	4	5.9	5.7	6.2	4.8	4.6	4.3	3.7	3.9	3.4	3.5
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.08	0.04	0.04	0.02	0.03	0.02	0.03	0.01	0.02	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.026	0.021	0.024	0.022	0.024	0.022	0.021	0.022	0.020	0.020
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.06	0.06	0.04	0.05	0.05	0.05	0.05	0.06	0.06	0.05
	2ND DAILY MAX 1-HOUR	NS	3	0.08	0.06	0.06	0.06	0.08	0.07	0.09	0.08	0.07	0.06
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	33	28	32	29	27	25	21	21	24	22
	90TH PERCENTILE	DOWN	1	59	59	66	56	39	47	34	32	33	34
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.003	0.002	0.002	0.003	0.002	0.001	0.002	0.002	0.002	0.002
	2ND MAX 24-HOUR	DOWN	1	0.015	0.010	0.013	0.012	0.010	0.005	0.005	0.007	0.006	0.006

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area	Trend	#Trend	1989 Sites	1990	1991	1992	1993	1994	1995	1996	1997	1998	
<b>SAN JOSE, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	2	11.9	10.8	10.2	7.3	6.4	7.4	5.6	5.7	5.4	6.1
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.12	0.08	0.04	0.03	0.02	0.02	0.02	0.01	0.01	0.01
O <sub>3</sub>	4TH MAX 8-HOUR	NS	4	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.06
	2ND DAILY MAX 1-HOUR	NS	4	0.11	0.11	0.11	0.11	0.11	0.10	0.12	0.11	0.08	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	4	38	36	34	30	26	26	22	21	22	21
	90TH PERCENTILE	DOWN	4	74	72	64	55	46	47	39	31	32	33
<b>SAN JUAN-BAYAMON, PR</b>													
CO	2ND MAX 8-HOUR	DOWN	2	5.5	5.3	5.3	5.3	4.5	4.8	4.9	4.0	3.9	3.8
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	7	32	33	29	28	31	29	25	26	30	28
	90TH PERCENTILE	NS	7	54	60	47	44	54	45	37	39	50	47
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.007	0.007	0.010	0.009	0.008	0.008	0.006	0.005	0.004	0.003
	2ND MAX 24-HOUR	DOWN	2	0.051	0.056	0.062	0.068	0.038	0.048	0.039	0.021	0.017	0.013
<b>SAN LUIS OBISPO-ATASCADERO-PASO ROBLES, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	1	4.7	3.9	3.3	3.0	3.1	3.1	2.4	2.3	2.3	2.0
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	3	0.014	0.013	0.013	0.012	0.012	0.012	0.011	0.011	0.011	0.010
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	5	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.07	0.06
	2ND DAILY MAX 1-HOUR	DOWN	5	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	26	23	24	21	22	21	21	18	20	15
	90TH PERCENTILE	DOWN	3	44	38	40	32	42	33	36	32	30	23
SO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.002	0.002	0.001	0.002	0.001	0.002	0.002	0.002	0.001	0.001
	2ND MAX 24-HOUR	DOWN	2	0.006	0.005	0.008	0.006	0.004	0.005	0.004	0.004	0.004	0.004
<b>SANTA BARBARA-SANTA MARIA-LOMPOC, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	4	2.8	2.4	2.3	2.3	2.2	2.5	2.1	1.9	1.6	1.7
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.05	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.01	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	15	0.008	0.007	0.007	0.007	0.006	0.007	0.006	0.006	0.006	0.006
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	16	0.08	0.08	0.08	0.07	0.08	0.08	0.07	0.07	0.08	0.07
	2ND DAILY MAX 1-HOUR	DOWN	16	0.15	0.11	0.10	0.10	0.10	0.10	0.10	0.11	0.09	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	11	25	23	23	22	23	23	22	21	22	21
	90TH PERCENTILE	NS	11	39	36	37	33	38	36	34	34	35	34
SO <sub>2</sub>	ARITHMETIC MEAN	NS	11	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	2ND MAX 24-HOUR	NS	11	0.003	0.003	0.003	0.003	0.004	0.003	0.004	0.003	0.002	0.002
<b>SANTA CRUZ-WATSONVILLE, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	1	1.1	1.0	1.0	1.0	1.0	1.2	0.8	0.7	0.7	0.8
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.009	0.008	0.010	0.007	0.006	0.006	0.005	0.005	0.004	0.004
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.06	0.06
	2ND DAILY MAX 1-HOUR	NS	2	0.08	0.08	0.09	0.07	0.08	0.07	0.07	0.08	0.07	0.07
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.002	0.001	0.001
	2ND MAX 24-HOUR	NS	1	0.004	0.003	0.002	0.006	0.006	0.006	0.008	0.003	0.002	0.003
<b>SANTA FE, NM</b>													
CO	2ND MAX 8-HOUR	DOWN	1	3.5	3.5	3.9	3.7	3.4	2.7	2.3	2.2	2.1	2.0
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	16	17	14	16	15	14	13	14	14	14
	90TH PERCENTILE	DOWN	2	24	24	22	23	23	21	19	21	20	20
<b>SANTA ROSA, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	1	5.0	4.3	3.8	3.5	3.8	3.2	2.4	3.0	3.1	3.0
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.015	0.015	0.015	0.016	0.016	0.015	0.015	0.014	0.013	0.015
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.06	0.06	0.06	0.07	0.06	0.06	0.06	0.05	0.06	0.06
	2ND DAILY MAX 1-HOUR	NS	2	0.09	0.08	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	23	20	23	18	19	18	16	16	15	14
	90TH PERCENTILE	DOWN	3	42	37	46	33	34	28	29	27	23	23
<b>SARASOTA-BRADENTON, FL</b>													
CO	2ND MAX 8-HOUR	DOWN	1	6.3	6.2	6.9	5.6	6.5	5.3	5.9	5.1	5.3	5.6
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.07	0.07	0.08	0.07	0.08	0.08	0.08	0.08	0.07	0.08
	2ND DAILY MAX 1-HOUR	NS	3	0.10	0.10	0.10	0.10	0.09	0.10	0.10	0.09	0.10	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	28	28	25	27	27	23	21	20	21	21
	90TH PERCENTILE	DOWN	3	43	43	42	41	39	35	34	29	30	31
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.003	0.002	0.003	0.003	0.003	0.003	0.002	0.002	0.002	0.002
	2ND MAX 24-HOUR	NS	1	0.017	0.016	0.035	0.021	0.018	0.017	0.010	0.018	0.009	0.019
<b>SAVANNAH, GA</b>													
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.003	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.003	0.003
	2ND MAX 24-HOUR	NS	1	0.013	0.008	0.009	0.008	0.011	0.015	0.013	0.019	0.013	0.010
<b>SCRANTON-WILKES-BARRE-HAZLETON, PA</b>													
CO	2ND MAX 8-HOUR	DOWN	2	4.1	4.5	4.2	3.8	2.9	3.6	2.8	3.8	3.1	2.5
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.019	0.018	0.017	0.016	0.018	0.018	0.016	0.018	0.016	0.015
O <sub>3</sub>	4TH MAX 8-HOUR	NS	4	0.09	0.09	0.09	0.10	0.08	0.09	0.08	0.09	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	4	0.10	0.11	0.12	0.10	0.11	0.10	0.11	0.10	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	3	29	25	29	25	26	28	25	24	26	26
	90TH PERCENTILE	DOWN	3	47	46	49	41	46	49	45	38	39	39
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.009	0.010	0.009	0.008	0.007	0.007	0.005	0.006	0.007	0.006
	2ND MAX 24-HOUR	DOWN	2	0.047	0.049	0.039	0.033	0.026	0.035	0.036	0.028	0.029	0.024

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area	Trend	#Trend	1989 Sites	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>SEATTLE-BELLEVUE-EVERETT, WA</b>												
CO	2ND MAX 8-HOUR	DOWN	5	8.5	7.3	7.4	7.5	5.6	5.4	5.0	5.4	4.5
LEAD	MAX QUARTERLY MEAN	UP	1	0.31	0.64	0.56	0.40	0.37	0.61	0.51	0.66	2.03
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.09	0.07	0.08	0.07	0.06	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	2	0.11	0.13	0.10	0.10	0.10	0.12	0.09	0.11	0.08
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	7	32	29	30	29	28	23	22	20	19
	90TH PERCENTILE	DOWN	7	54	49	51	48	48	38	36	32	37
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.007	0.008	0.008	0.008	0.008	0.006	0.005	0.004	0.005
	2ND MAX 24-HOUR	DOWN	2	0.021	0.023	0.023	0.020	0.020	0.022	0.017	0.017	0.011
<b>SHARON, PA</b>												
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.09	0.09	0.09	0.07	0.05	0.05	0.05	0.07	0.04
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.09	0.09	0.09	0.08	0.09	0.10	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.11	0.10	0.11	0.10	0.11	0.11	0.11	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	35	30	36	27	28	30	28	29	28
	90TH PERCENTILE	DOWN	1	57	52	59	42	47	51	49	37	42
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.011	0.010	0.009	0.008	0.008	0.008	0.008	0.007	0.007
	2ND MAX 24-HOUR	NS	1	0.043	0.036	0.032	0.030	0.029	0.047	0.032	0.029	0.032
<b>SHREVEPORT-BOSSIER CITY, LA</b>												
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.09	0.08	0.08	0.09	0.08	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.12	0.11	0.10	0.10	0.11	0.09	0.10	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	23	23	28	24	22	24	24	22	23
	90TH PERCENTILE	NS	1	33	33	48	36	37	36	43	29	35
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.004	0.002	0.002	0.004	0.004	0.002	0.001	0.002	0.002
	2ND MAX 24-HOUR	NS	1	0.023	0.006	0.009	0.013	0.011	0.008	0.004	0.004	0.010
<b>SIOUX CITY, IA-NE</b>												
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	28	28	28	25	23	23	26	33	28
	90TH PERCENTILE	NS	1	47	46	51	45	40	38	55	72	54
<b>SIOUX FALLS, SD</b>												
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	22	20	19	19	15	22	20	19	21
	90TH PERCENTILE	NS	1	39	37	33	33	28	35	38	30	34
<b>SOUTH BEND, IN</b>												
O <sub>3</sub>	4TH MAX 8-HOUR	UP	3	0.08	0.08	0.08	0.09	0.08	0.08	0.09	0.09	0.09
	2ND DAILY MAX 1-HOUR	UP	3	0.09	0.10	0.10	0.09	0.09	0.10	0.11	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	30	31	30	23	24	27	22	20	21
	90TH PERCENTILE	DOWN	2	53	53	49	38	36	39	42	35	37
<b>SPOKANE, WA</b>												
CO	2ND MAX 8-HOUR	DOWN	3	9.4	9.1	9.3	8.1	8.0	6.4	6.9	6.8	5.1
O <sub>3</sub>	4TH MAX 8-HOUR	UP	1	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	1	0.07	0.07	0.08	0.08	0.07	0.09	0.08	0.08	0.08
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	44	44	38	40	38	36	29	31	28
	90TH PERCENTILE	DOWN	3	64	74	69	67	70	60	53	51	48
<b>SPRINGFIELD, IL</b>												
CO	2ND MAX 8-HOUR	DOWN	1	4.4	4.4	4.3	4.5	3.9	3.1	3.2	3.0	1.9
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	1	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07
	2ND DAILY MAX 1-HOUR	DOWN	1	0.11	0.10	0.10	0.09	0.11	0.10	0.10	0.10	0.09
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.007	0.007	0.008	0.006	0.006	0.006	0.006	0.006	0.007
	2ND MAX 24-HOUR	NS	1	0.047	0.054	0.048	0.043	0.040	0.050	0.062	0.061	0.061
<b>SPRINGFIELD, MO</b>												
CO	2ND MAX 8-HOUR	DOWN	1	6.7	7.2	6.9	6.2	5.3	5.9	4.1	3.3	4.6
NO <sub>2</sub>	ARITHMETIC MEAN	UP	1	0.010	0.008	0.008	0.010	0.011	0.013	0.012	0.011	0.012
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.07	0.07	0.06	0.06	0.06	0.07	0.07	0.08	0.07
	2ND DAILY MAX 1-HOUR	UP	2	0.07	0.08	0.07	0.08	0.08	0.09	0.10	0.09	0.08
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	22	22	18	19	17	17	17	18	18
	90TH PERCENTILE	DOWN	3	37	36	27	30	30	28	28	26	31
SO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.006	0.006	0.003	0.004	0.006	0.008	0.003	0.005	0.002
	2ND MAX 24-HOUR	NS	2	0.052	0.057	0.033	0.034	0.040	0.067	0.021	0.043	0.022
<b>SPRINGFIELD, MA</b>												
CO	2ND MAX 8-HOUR	NS	2	7.3	6.7	6.3	7.1	6.1	7.5	7.9	7.1	4.1
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.018	0.018	0.017	0.016	0.016	0.019	0.015	0.016	0.013
O <sub>3</sub>	4TH MAX 8-HOUR	NS	4	0.09	0.09	0.09	0.10	0.09	0.10	0.09	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	4	0.12	0.12	0.13	0.12	0.13	0.12	0.12	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	5	25	23	23	22	22	24	21	22	21
	90TH PERCENTILE	NS	5	40	39	42	34	40	40	36	35	39
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	3	0.009	0.008	0.008	0.007	0.006	0.006	0.005	0.005	0.005
	2ND MAX 24-HOUR	DOWN	3	0.040	0.033	0.031	0.034	0.023	0.048	0.023	0.024	0.020
<b>STAMFORD-NORWALK, CT</b>												
CO	2ND MAX 8-HOUR	DOWN	1	6.0	6.3	6.0	5.5	5.2	6.2	5.4	4.1	3.8
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	1	0.11	0.11	0.11	0.11	0.08	0.10	0.11	0.10	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.16	0.14	0.15	0.11	0.15	0.16	0.14	0.12	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	3	29	30	32	24	23	28	25	26	24
	90TH PERCENTILE	NS	3	48	49	51	37	35	50	41	39	35
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.006	0.005	0.006	0.005	0.005	0.006	0.004	0.005	0.004

**Table A-14.** Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area	Trend	#Trend	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
			Sites										
	2ND MAX 24-HOUR	NS	1	0.029	0.024	0.025	0.022	0.020	0.028	0.023	0.019	0.025	0.025
<b>STEUBENVILLE-WEIRTON, OH-WV</b>													
CO	2ND MAX 8-HOUR	DOWN	1	13.3	20.5	13.9	6.9	6.6	8.2	5.7	5.3	2.2	2.2
LEAD	MAX QUARTERLY MEAN	DOWN	2	0.07	0.07	0.08	0.15	0.07	0.08	0.06	0.05	0.03	0.03
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.023	0.020	0.021	0.019	0.017	0.020	0.020	0.020	0.017	0.017
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.07	0.09	0.08	0.08	0.08	0.09	0.08	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.10	0.09	0.11	0.09	0.10	0.10	0.11	0.10	0.09	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	6	42	37	40	36	34	35	34	32	27	29
	90TH PERCENTILE	DOWN	6	69	67	70	61	58	61	58	52	45	50
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	6	0.026	0.025	0.024	0.019	0.019	0.018	0.011	0.011	0.011	0.011
	2ND MAX 24-HOUR	DOWN	6	0.094	0.089	0.083	0.079	0.086	0.092	0.050	0.050	0.051	0.046
<b>STOCKTON-LODI, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	2	9.0	10.9	9.7	5.9	5.8	7.0	4.8	6.0	3.7	5.3
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.05	0.04	0.04	0.02	0.03	0.02	0.02	0.02	0.01	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.026	0.026	0.025	0.024	0.024	0.024	0.022	0.023	0.022	0.023
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.09	0.09	0.09	0.08	0.09	0.09	0.08	0.07
	2ND DAILY MAX 1-HOUR	NS	2	0.11	0.12	0.11	0.11	0.11	0.12	0.13	0.10	0.09	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	46	45	49	39	36	35	31	26	29	28
	90TH PERCENTILE	DOWN	2	85	76	94	60	75	59	51	38	46	55
<b>SYRACUSE, NY</b>													
CO	2ND MAX 8-HOUR	DOWN	1	9.7	6.8	8.4	7.5	5.6	6.5	3.3	3.9	4.0	3.0
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	1	0.10	0.10	0.10	0.10	0.08	0.09	0.08	0.08	0.08	0.08
	2ND DAILY MAX 1-HOUR	DOWN	1	0.11	0.11	0.11	0.10	0.10	0.08	0.10	0.08	0.09	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	32	27	29	27	24	24	23	23	23	25
	90TH PERCENTILE	DOWN	3	56	49	48	48	42	42	39	34	38	41
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.003	0.003	0.003	0.004	0.004	0.004	0.004	0.003	0.003	0.002
	2ND MAX 24-HOUR	NS	1	0.016	0.016	0.016	0.013	0.019	0.017	0.016	0.012	0.014	0.009
<b>TACOMA, WA</b>													
CO	2ND MAX 8-HOUR	NS	1	10.3	8.0	8.7	8.9	5.9	6.0	6.3	6.3	6.8	5.8
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.07	0.07	0.09	0.08	0.08	0.07	0.07	0.07	0.08	0.07
	2ND DAILY MAX 1-HOUR	NS	1	0.09	0.13	0.09	0.10	0.10	0.11	0.09	0.10	0.08	0.13
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	3	36	31	32	34	29	24	24	22	24	20
	90TH PERCENTILE	DOWN	3	66	59	54	57	51	41	42	38	46	34
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.007	0.008	0.008	0.009	0.009	0.007	0.006	0.006	0.006	0.006
	2ND MAX 24-HOUR	DOWN	2	0.027	0.026	0.023	0.030	0.025	0.021	0.020	0.024	0.023	0.019
<b>TAMPA-ST. PETERSBURG-CLEARWATER, FL</b>													
CO	2ND MAX 8-HOUR	DOWN	6	3.7	3.8	2.9	2.9	2.6	2.2	2.8	2.5	2.4	2.5
LEAD	MAX QUARTERLY MEAN	DOWN	3	0.78	0.76	0.76	0.45	0.23	0.30	0.25	0.25	0.21	0.18
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.013	0.013	0.012	0.011	0.011	0.010	0.011	0.011	0.011	0.011
O <sub>3</sub>	4TH MAX 8-HOUR	NS	6	0.08	0.08	0.08	0.07	0.07	0.07	0.08	0.07	0.07	0.08
	2ND DAILY MAX 1-HOUR	NS	6	0.10	0.11	0.10	0.10	0.09	0.10	0.10	0.10	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	4	30	29	29	27	28	27	26	27	28	28
	90TH PERCENTILE	NS	4	44	40	42	41	38	40	41	42	44	41
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	7	0.007	0.006	0.005	0.005	0.005	0.005	0.004	0.004	0.005	0.005
	2ND MAX 24-HOUR	NS	7	0.028	0.027	0.025	0.024	0.024	0.027	0.022	0.022	0.023	0.025
<b>TERRE HAUTE, IN</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.09	0.09	0.07	0.07	0.09	0.09	0.10	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.11	0.11	0.10	0.08	0.09	0.11	0.10	0.11	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	5	33	33	30	26	25	25	27	22	23	23
	90TH PERCENTILE	DOWN	5	58	55	50	43	45	40	48	37	39	38
SO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.009	0.011	0.011	0.007	0.009	0.010	0.007	0.009	0.006	0.007
	2ND MAX 24-HOUR	DOWN	2	0.043	0.038	0.037	0.033	0.039	0.039	0.029	0.033	0.023	0.027
<b>TEXARKANA, TX-TEXARKANA, AR</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	26	24	22	23	22	23	26	23	22	22
	90TH PERCENTILE	NS	1	39	36	39	37	35	36	45	39	34	34
<b>TOLEDO, OH</b>													
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.48	0.79	0.48	0.57	0.63	0.70	0.43	0.44	0.42	0.35
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.09	0.09	0.09	0.09	0.08	0.08	0.09	0.09	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	3	0.10	0.10	0.11	0.09	0.11	0.11	0.11	0.11	0.10	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	36	26	29	28	25	26	25	22	22	22
	90TH PERCENTILE	DOWN	1	55	51	51	42	44	44	44	34	34	34
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.007	0.006	0.006	0.006	0.007	0.007	0.004	0.004	0.004	0.004
	2ND MAX 24-HOUR	NS	2	0.040	0.033	0.022	0.029	0.028	0.047	0.025	0.031	0.019	0.019
<b>TOPEKA, KS</b>													
LEAD	MAX QUARTERLY MEAN	DOWN	4	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	40	33	26	28	27	29	34	27	28	28
	90TH PERCENTILE	NS	1	62	58	39	47	40	46	54	41	44	44
<b>TRENTON, NJ</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.11	0.11	0.11	0.12	0.11	0.10	0.10	0.11	0.09	0.11
	2ND DAILY MAX 1-HOUR	DOWN	1	0.14	0.14	0.15	0.15	0.14	0.14	0.13	0.12	0.13	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	30	29	31	26	27	29	24	27	27	27
	90TH PERCENTILE	DOWN	1	48	51	50	43	43	52	38	40	40	40

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area		Trend	#Trend	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
				Sites									
<b>TUSCON, AZ</b>													
CO	2ND MAX 8-HOUR	DOWN	4	5.9	4.6	4.5	4.7	4.6	4.6	4.4	4.1	3.7	3.3
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.021	0.020	0.021	0.020	0.020	0.020	0.020	0.018	0.018	0.018
O <sub>3</sub>	4TH MAX 8-HOUR	NS	6	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.08	0.07	0.07
	2ND DAILY MAX 1-HOUR	NS	6	0.09	0.09	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	10	39	33	26	24	22	22	26	25	26	26
	90TH PERCENTILE	NS	10	60	50	39	36	33	33	41	36	38	39
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.002	0.002
	2ND MAX 24-HOUR	DOWN	1	0.007	0.007	0.007	0.006	0.005	0.004	0.004	0.004	0.004	0.004
<b>TULSA, OK</b>													
CO	2ND MAX 8-HOUR	NS	2	5.6	4.7	4.6	5.1	3.9	3.9	3.4	5.3	5.7	3.9
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.20	0.11	0.21	0.10	0.20	0.10	0.09	0.11	0.02	0.02
NO <sub>2</sub>	ARITHMETIC MEAN	NS	2	0.014	0.011	0.013	0.013	0.013	0.013	0.010	0.012	0.012	0.012
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.08	0.08	0.09	0.09	0.08	0.08	0.09	0.10	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	3	0.11	0.12	0.11	0.10	0.11	0.11	0.12	0.11	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	5	28	24	25	24	26	26	26	26	24	24
	90TH PERCENTILE	DOWN	5	47	42	41	39	40	42	44	40	38	38
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.007	0.012	0.010	0.011	0.006	0.004	0.008	0.008	0.008	0.010
	2ND MAX 24-HOUR	NS	1	0.038	0.056	0.047	0.053	0.026	0.025	0.034	0.042	0.028	0.034
<b>TUSCALOOSA, AL</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	29	32	28	26	26	26	27	26	25	28
	90TH PERCENTILE	NS	1	48	61	47	38	43	41	48	41	41	44
<b>UTICA-ROME, NY</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.09	0.09	0.08	0.07	0.07	0.08	0.06	0.07
	2ND DAILY MAX 1-HOUR	NS	1	0.09	0.10	0.10	0.09	0.09	0.09	0.10	0.08	0.09	0.09
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	21	21	21	19	16	16	15	16	15	17
	90TH PERCENTILE	DOWN	2	35	35	35	32	30	29	26	28	26	30
<b>VALLEJO-FAIRFIELD-NAPA, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	2	7.4	6.9	6.6	5.6	5.6	5.2	4.2	4.2	4.4	4.2
O <sub>3</sub>	4TH MAX 8-HOUR	NS	3	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.07	0.06
	2ND DAILY MAX 1-HOUR	NS	3	0.10	0.09	0.10	0.09	0.10	0.10	0.11	0.10	0.08	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	27	27	41	24	23	21	19	17	16	17
	90TH PERCENTILE	DOWN	1	53	53	69	48	36	32	32	25	22	33
<b>VENTURA, CA</b>													
CO	2ND MAX 8-HOUR	NS	2	3.0	3.3	3.1	2.3	2.5	2.8	3.2	2.4	2.4	2.3
LEAD	MAX QUARTERLY MEAN	DOWN	1	0.04	0.02	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.017	0.016	0.015	0.014	0.014	0.014	0.014	0.013	0.012	0.011
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	5	0.11	0.11	0.10	0.10	0.10	0.09	0.10	0.10	0.10	0.09
	2ND DAILY MAX 1-HOUR	DOWN	5	0.15	0.13	0.14	0.13	0.12	0.13	0.13	0.13	0.11	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	5	39	34	36	30	27	29	28	27	29	23
	90TH PERCENTILE	DOWN	5	63	56	56	47	45	45	47	43	47	40
<b>VICTORIA, TX</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.06	0.09	0.08	0.08	0.08	0.09	0.07	0.08
	2ND DAILY MAX 1-HOUR	DOWN	1	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.09	0.09	0.10
<b>VINELAND-MILLVILLE-BRIDGETON, NJ</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	DOWN	1	0.11	0.11	0.11	0.11	0.09	0.10	0.09	0.09	0.09	0.10
	2ND DAILY MAX 1-HOUR	NS	1	0.13	0.13	0.12	0.10	0.12	0.10	0.13	0.11	0.12	0.12
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.008	0.007	0.007	0.006	0.006	0.005	0.004	0.005	0.004	0.004
	2ND MAX 24-HOUR	DOWN	1	0.049	0.024	0.023	0.021	0.019	0.032	0.016	0.016	0.018	0.012
<b>VISALIA-TULARE-PORTERVILLE, CA</b>													
CO	2ND MAX 8-HOUR	DOWN	1	5.9	5.0	5.3	4.3	3.5	4.0	4.2	3.9	3.5	3.6
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.021	0.021	0.022	0.020	0.023	0.023	0.023	0.018	0.019	0.017
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.10	0.10	0.10
	2ND DAILY MAX 1-HOUR	NS	2	0.13	0.12	0.12	0.12	0.14	0.14	0.12	0.13	0.11	0.13
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	61	69	61	51	49	42	44	40	40	38
	90TH PERCENTILE	DOWN	2	111	129	107	83	90	63	72	70	63	64
<b>WASHINGTON, DC-MD-VA-WV</b>													
CO	2ND MAX 8-HOUR	DOWN	8	6.2	5.2	5.0	4.4	5.0	4.5	4.4	3.9	4.0	3.3
LEAD	MAX QUARTERLY MEAN	DOWN	5	0.05	0.05	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	6	0.026	0.027	0.026	0.026	0.026	0.025	0.023	0.023	0.022	0.023
O <sub>3</sub>	4TH MAX 8-HOUR	NS	12	0.09	0.09	0.09	0.10	0.09	0.10	0.09	0.10	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	12	0.11	0.12	0.12	0.11	0.12	0.12	0.12	0.11	0.12	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	11	30	26	26	23	22	21	22	21	20	21
	90TH PERCENTILE	DOWN	11	46	42	41	36	38	39	36	34	32	35
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	4	0.010	0.008	0.008	0.008	0.008	0.008	0.007	0.007	0.007	0.007
	2ND MAX 24-HOUR	DOWN	4	0.038	0.030	0.029	0.033	0.027	0.031	0.020	0.028	0.022	0.020
<b>WATERBURY, CT</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	32	34	30	23	24	26	24	26	24	22
	90TH PERCENTILE	DOWN	2	58	57	49	44	45	43	40	47	38	33
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.010	0.010	0.009	0.007	0.006	0.007	0.005	0.005	0.005	0.006
	2ND MAX 24-HOUR	DOWN	1	0.048	0.042	0.038	0.029	0.021	0.030	0.019	0.022	0.020	0.021

Table A-14. Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area	Trend	#Trend	1989 Sites	1990	1991	1992	1993	1994	1995	1996	1997	1998	
<b>WATERLOO-CEDAR FALLS, IA</b>													
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	35	35	35	34	31	29	36	32	31	30
	90TH PERCENTILE	DOWN	1	57	57	57	63	48	45	52	48	47	47
<b>WAUSAU, WI</b>													
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.004	0.004	0.004	0.004	0.004	0.004	0.003	0.003	0.002	0.003
	2ND MAX 24-HOUR	NS	1	0.030	0.030	0.030	0.024	0.039	0.024	0.022	0.015	0.013	0.031
<b>WEST PALM BEACH-BOCA RATON, FL</b>													
CO	2ND MAX 8-HOUR	NS	1	3.7	2.7	3.1	3.7	3.1	2.8	2.8	2.5	3.6	2.5
NO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.013	0.014	0.012	0.011	0.013	0.012	0.012	0.012	0.012	0.012
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.06	0.06	0.07	0.06	0.05	0.08	0.07	0.06	0.06	0.06
	2ND DAILY MAX 1-HOUR	NS	2	0.10	0.09	0.08	0.07	0.12	0.08	0.08	0.09	0.08	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	2	19	19	18	20	19	18	18	18	20	20
	90TH PERCENTILE	NS	2	27	27	28	30	29	25	25	28	29	31
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.003	0.002	0.002	0.003	0.004	0.003	0.002	0.002	0.002	0.001
	2ND MAX 24-HOUR	NS	1	0.009	0.007	0.012	0.010	0.028	0.016	0.019	0.014	0.013	0.004
<b>WHEELING, WV-OH</b>													
CO	2ND MAX 8-HOUR	DOWN	1	5.2	7.1	5.6	5.6	4.1	4.6	5.0	3.5	3.1	3.5
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.08	0.09	0.08	0.08	0.08	0.09	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.11	0.11	0.11	0.10	0.11	0.10	0.10	0.11	0.11	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	34	30	31	30	29	28	28	28	24	25
	90TH PERCENTILE	DOWN	2	59	50	53	52	51	49	46	42	41	46
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	3	0.021	0.020	0.020	0.018	0.018	0.015	0.010	0.011	0.010	0.011
	2ND MAX 24-HOUR	DOWN	3	0.065	0.064	0.074	0.077	0.075	0.065	0.055	0.058	0.043	0.045
<b>WICHITA, KS</b>													
CO	2ND MAX 8-HOUR	DOWN	3	7.9	5.9	5.9	5.6	5.0	4.9	5.2	5.8	4.8	4.8
LEAD	MAX QUARTERLY MEAN	DOWN	5	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.07	0.07	0.08	0.08	0.07	0.06	0.07	0.07	0.07	0.08
	2ND DAILY MAX 1-HOUR	NS	2	0.07	0.10	0.09	0.08	0.08	0.09	0.10	0.09	0.09	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	4	30	28	31	32	31	26	27	25	22	24
	90TH PERCENTILE	NS	4	50	49	51	53	56	50	51	43	40	41
<b>WILLIAMSPORT, PA</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.07	0.07	0.07	0.08	0.07	0.08	0.07	0.07	0.07	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.08	0.09	0.10	0.09	0.09	0.08	0.09	0.08	0.09	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	29	26	31	24	24	28	28	25	26	26
	90TH PERCENTILE	NS	1	46	50	60	36	47	52	49	36	40	40
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.007	0.006	0.007	0.007	0.006	0.006	0.006	0.006	0.008	0.005
	2ND MAX 24-HOUR	NS	1	0.042	0.025	0.025	0.029	0.025	0.042	0.027	0.028	0.028	0.021
<b>WILMINGTON-NEWARK, DE-MD</b>													
CO	2ND MAX 8-HOUR	NS	1	4.5	5.4	4.0	4.1	3.8	4.3	4.6	3.6	4.5	3.1
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.10	0.10	0.10	0.11	0.09	0.09	0.09	0.12	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.12	0.14	0.14	0.12	0.14	0.12	0.14	0.11	0.12	0.12
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	33	30	28	24	25	29	28	25	25	24
	90TH PERCENTILE	DOWN	2	52	48	45	39	43	52	45	42	43	41
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.016	0.013	0.012	0.013	0.013	0.012	0.010	0.009	0.008	0.007
	2ND MAX 24-HOUR	DOWN	2	0.048	0.043	0.033	0.046	0.041	0.044	0.036	0.035	0.034	0.027
<b>WORCESTER, MA-CT</b>													
CO	2ND MAX 8-HOUR	DOWN	1	7.9	6.0	7.2	8.0	6.1	5.9	4.2	5.3	3.4	3.5
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.026	0.022	0.023	0.024	0.028	0.025	0.021	0.019	0.019	0.019
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	26	23	21	20	20	20	19	20	20	19
	90TH PERCENTILE	DOWN	2	37	41	38	34	37	36	32	34	32	33
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.011	0.008	0.009	0.007	0.007	0.008	0.006	0.005	0.004	0.005
	2ND MAX 24-HOUR	DOWN	1	0.040	0.034	0.029	0.033	0.025	0.024	0.023	0.021	0.021	0.017
<b>YAKIMA, WA</b>													
CO	2ND MAX 8-HOUR	NS	1	8.7	7.4	9.0	8.8	7.9	8.0	7.1	7.4	7.4	7.4
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	2	33	33	40	32	35	29	24	30	32	26
	90TH PERCENTILE	DOWN	2	62	62	81	60	63	55	46	59	59	43
<b>YOLO, CA</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.08	0.08	0.08	0.07	0.09	0.08	0.08	0.08	0.09	0.07
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.10	0.11	0.11	0.09	0.10	0.11	0.11	0.09	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	46	46	46	35	29	30	30	24	25	22
	90TH PERCENTILE	DOWN	1	81	81	81	63	62	46	61	40	37	42
<b>YORK, PA</b>													
CO	2ND MAX 8-HOUR	DOWN	1	4.6	4.4	3.7	3.6	3.3	3.9	2.7	2.8	3.4	2.4
LEAD	MAX QUARTERLY MEAN	NS	1	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.04	0.05
NO <sub>2</sub>	ARITHMETIC MEAN	DOWN	1	0.022	0.022	0.021	0.020	0.022	0.024	0.021	0.021	0.019	0.019
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.10	0.10	0.08	0.09	0.08	0.09	0.08	0.09
	2ND DAILY MAX 1-HOUR	NS	1	0.10	0.12	0.11	0.10	0.11	0.12	0.10	0.10	0.11	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	NS	1	31	30	32	27	31	32	30	28	31	31
	90TH PERCENTILE	NS	1	50	56	60	44	52	51	56	46	49	49
SO <sub>2</sub>	ARITHMETIC MEAN	NS	1	0.008	0.007	0.008	0.007	0.008	0.009	0.006	0.007	0.009	0.008
	2ND MAX 24-HOUR	NS	1	0.035	0.023	0.020	0.034	0.032	0.041	0.020	0.022	0.026	0.023

**Table A-14.** Metropolitan Statistical Area Air Quality Trends, 1989–1998 (continued)

Metropolitan Statistical Area		Trend	#Trend	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
				Sites									
<b>YOUNGSTOWN-WARREN, OH</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	1	0.09	0.09	0.08	0.10	0.09	0.08	0.08	0.10	0.09	0.08
	2ND DAILY MAX 1-HOUR	NS	1	0.11	0.10	0.12	0.10	0.10	0.10	0.11	0.10	0.10	0.11
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	9	34	31	33	29	27	29	28	26	25	27
	90TH PERCENTILE	DOWN	9	55	53	55	49	49	49	48	39	43	47
SO <sub>2</sub>	ARITHMETIC MEAN	DOWN	2	0.016	0.016	0.016	0.013	0.011	0.011	0.010	0.009	0.008	0.008
	2ND MAX 24-HOUR	NS	2	0.043	0.053	0.048	0.056	0.063	0.051	0.038	0.044	0.037	0.030
<b>YUBA CITY, CA</b>													
O <sub>3</sub>	4TH MAX 8-HOUR	NS	2	0.08	0.08	0.08	0.08	0.09	0.08	0.08	0.09	0.09	0.07
	2ND DAILY MAX 1-HOUR	NS	2	0.09	0.10	0.10	0.11	0.11	0.10	0.11	0.11	0.09	0.10
PM <sub>10</sub>	WEIGHTED ANNUAL MEAN	DOWN	1	39	39	39	34	30	34	33	29	29	23
	90TH PERCENTILE	DOWN	1	60	60	73	57	59	51	68	50	48	44

- CO = Highest second maximum non-overlapping 8-hour concentration (*Applicable NAAQS is 9 ppm*)
- Pb = Highest quarterly maximum concentration (*Applicable NAAQS is 1.5 µg/m3*)
- NO<sub>2</sub> = Highest arithmetic mean concentration (*Applicable NAAQS is 0.053 ppm*)
- O<sub>3</sub> (1-hr) = Highest second daily maximum 1-hour concentration (*Applicable NAAQS is 0.12 ppm*)
- O<sub>3</sub> (8-hr) = Highest fourth daily maximum 8-hour concentration (*Applicable NAAQS is 0.08 ppm*)
- PM<sub>10</sub> = Highest second maximum 24-hour concentration (*Applicable NAAQS is 150 µg/m3*)
- SO<sub>2</sub> = Highest second maximum 24-hour concentration (*Applicable NAAQS is 0.14 ppm*)
- PPM = Units are parts per million
- µg/m<sup>3</sup> = Units are micrograms per cubic meter

**Table A-15.** Number of Days with AQI Values Greater Than 100 at Trend Sites, 1989–1998, and All Sites in 1998

Metropolitan Statistical Area	# of Trend Sites											Total # of Sites	AQI > 100 1998
		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998		
AKRON, OH	5	15	9	30	8	10	8	12	11	6	14	6	14
ALBANY-SCHENECTADY-TROY, NY	7	4	4	9	5	5	6	3	4	3	2	13	2
ALBUQUERQUE, NM	21	8	8	5	0	0	1	0	0	0	0	25	0
ALLENTOWN-BETHLEHEM-EASTON, PA	9	11	10	14	3	6	10	17	6	13	18	9	18
ATLANTA, GA	7	14	42	23	18	30	12	33	21	26	43	18	60
AUSTIN-SAN MARCOS, TX	5	4	4	3	1	2	4	12	0	0	5	5	6
BAKERSFIELD, CA	7	113	97	109	100	97	98	104	109	55	75	16	78
BALTIMORE, MD	15	28	29	50	23	48	41	36	28	30	51	22	51
BATON ROUGE, LA	6	12	28	11	5	5	7	15	7	8	14	10	21
BERGEN-PASSAIC, NJ	8	12	8	11	2	3	5	11	3	5	0	8	0
BIRMINGHAM, AL	16	5	28	5	12	10	6	32	15	8	23	16	23
BOSTON, MA-NH	25	12	7	13	9	6	10	8	2	8	7	25	9
BUFFALO-NIAGARA FALLS, NY	21	4	8	9	3	1	4	6	3	1	13	21	13
CHARLESTON-NORTH CHARLESTON, SC	9	5	1	2	0	2	2	1	3	3	3	9	3
CHARLOTTE-GASTONIA-ROCK HILL, NC-SC	10	12	31	12	11	23	9	13	18	26	48	26	51
CHICAGO, IL	46	16	4	22	4	3	8	21	6	9	7	61	10
CINCINNATI, OH-KY-IN	20	19	19	22	3	13	19	23	11	11	14	23	20
CLEVELAND-LORAIN-ELYRIA, OH	24	18	10	23	11	13	23	24	17	11	20	40	22
COLUMBUS, OH	10	7	4	17	5	7	10	15	16	8	19	12	23
DALLAS, TX	8	18	24	2	11	12	15	36	12	15	18	11	36
DAYTON-SPRINGFIELD, OH	10	10	13	12	2	11	14	11	18	9	19	13	21
DENVER, CO	20	14	9	6	8	3	1	2	0	0	5	29	9
DETROIT, MI	30	18	11	28	8	5	13	14	13	12	17	32	17
EL PASO, TX	17	25	19	7	10	7	11	5	7	3	5	22	8
FORT LAUDERDALE, FL	8	6	1	0	2	4	1	1	1	0	1	18	1
FORT WORTH-ARLINGTON, TX	8	17	16	20	7	9	31	28	14	14	17	8	17
FRESNO, CA	11	91	62	83	69	59	55	61	70	75	67	15	69
GARY, IN	18	15	2	8	5	0	6	17	11	12	9	22	10
GRAND RAPIDS-MUSKEGON-HOLLAND, MI	8	16	10	26	6	3	12	17	7	8	13	10	19
GREENSBORO-WINSTON-SALEM-HIGH PT, NC	7	6	12	5	2	20	7	6	6	13	25	16	30
GREENVILLE-SPARTANBURG-ANDERSON, SC	5	3	2	3	5	9	5	8	7	10	29	7	29
HARRISBURG-LEBANON-CARLISLE, PA	7	10	10	21	1	15	12	13	3	9	22	7	22
HARTFORD, CT	15	19	13	23	15	14	18	14	5	16	10	15	10
HONOLULU, HI	6	0	0	0	0	0	0	0	0	0	0	14	0
HOUSTON, TX	26	43	54	37	32	28	45	66	28	47	38	26	40
INDIANAPOLIS, IN	29	15	9	12	7	9	22	19	13	12	19	37	22
JACKSONVILLE, FL	15	4	3	0	2	3	2	1	1	4	10	15	10
JERSEY CITY, NJ	7	15	15	25	9	19	12	16	5	9	7	7	7
KANSAS CITY, MO-KS	21	4	2	11	1	4	10	22	10	18	15	22	15
KNOXVILLE, TN	14	2	23	10	7	20	13	20	19	36	52	18	55
LAS VEGAS, NV-AZ	6	36	21	8	4	6	8	1	5	0	0	28	11
LITTLE ROCK-NORTH LITTLE ROCK, AR	7	1	1	3	0	2	2	7	1	1	2	7	3
LOS ANGELES-LONG BEACH, CA	38	215	173	169	175	134	139	113	94	60	56	38	56
LOUISVILLE, KY-IN	18	15	10	15	2	20	27	21	10	13	24	26	29
MEMPHIS, TN-AR-MS	13	8	24	9	14	15	10	21	19	17	27	14	27
MIAMI, FL	10	5	1	1	3	6	1	2	1	3	8	12	8
MIDDLESEX-SOMERSET-HUNTERDON, NJ	4	19	24	24	8	13	9	16	8	18	21	4	22
MILWAUKEE-WAUKESHA, WI	18	17	8	24	3	4	9	14	5	4	10	22	12

**Table A-15.** Number of Days with AQI Values Greater Than 100 at Trend Sites, 1989–1998, and All Sites in 1998 (continued)

Metropolitan Statistical Area	# of Trend Sites											Total # of Sites	AQI > 100 1998
		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998		
MINNEAPOLIS-ST. PAUL, MN-WI	24	8	4	2	3	0	4	7	1	0	0	37	1
MONMOUTH-OCEAN, NJ	3	15	21	20	6	11	3	6	12	12	19	4	31
NASHVILLE, TN	17	12	31	13	6	18	21	28	23	20	30	21	32
NASSAU-SUFFOLK, NY	4	14	20	25	5	15	10	9	6	8	10	8	11
NEW HAVEN-MERIDEN, CT	10	11	17	29	10	17	14	14	8	19	10	10	10
NEW ORLEANS, LA	11	4	6	2	5	6	8	20	8	7	7	11	7
NEW YORK, NY	29	29	36	49	10	19	21	19	15	23	17	39	21
NEWARK, NJ	12	21	23	35	10	13	13	20	12	13	23	12	23
NORFOLK-VA BEACH-NEWPORT NEWS,VA-NC	12	4	8	7	8	19	6	6	4	17	15	12	15
OAKLAND, CA	20	6	4	4	3	4	3	12	11	0	11	29	12
OKLAHOMA CITY, OK	10	4	4	4	2	2	5	13	2	4	7	14	7
OMAHA, NE-IA	9	1	1	0	0	1	1	1	1	0	5	12	5
ORANGE COUNTY, CA	11	56	45	35	35	25	15	9	9	3	6	11	6
ORLANDO, FL	9	9	4	1	4	4	3	1	1	4	11	13	14
PHILADELPHIA, PA-NJ	36	44	39	49	24	51	26	30	22	32	37	44	38
PHOENIX-MESA, AZ	23	30	12	11	13	16	10	22	17	12	17	49	37
PITTSBURGH, PA	41	21	19	21	9	13	19	25	11	20	39	53	39
PONCE, PR	1	0	0	0	0	0	0	0	0	0	0	1	0
PORTLAND-VANCOUVER, OR-WA	12	2	11	8	6	0	2	2	6	0	3	17	3
PROVIDENCE-FALL RIVER-WARWICK, RI-MA	11	9	13	20	5	7	7	11	4	10	4	13	5
RALEIGH-DURHAM-CHAPEL HILL, NC	4	14	15	5	0	11	2	1	1	13	21	18	40
RICHMOND-PETERSBURG, VA	10	11	6	18	8	30	13	19	5	21	28	11	28
RIVERSIDE-SAN BERNARDINO, CA	35	187	158	154	174	168	149	124	119	106	94	51	96
ROCHESTER, NY	8	5	5	16	2	0	1	6	0	6	4	8	4
SACRAMENTO, CA	13	63	36	54	44	14	30	32	30	5	17	33	33
ST. LOUIS, MO-IL	54	25	23	32	15	9	32	34	20	15	23	63	24
SALT LAKE CITY-OGDEN, UT	12	21	5	20	9	5	13	4	8	1	12	23	19
SAN ANTONIO, TX	7	3	4	3	1	3	4	18	3	3	6	7	6
SAN DIEGO, CA	23	127	96	67	66	58	46	48	31	14	33	28	35
SAN FRANCISCO, CA	9	0	0	0	0	0	0	2	0	0	0	11	0
SAN JOSE, CA	8	18	7	11	3	4	2	10	7	0	5	11	8
SAN JUAN-BAYAMON, PR	10	0	0	0	0	0	0	0	1	2	1	27	1
SCRANTON-WILKES-BARRE-HAZLETON, PA	11	6	9	17	3	10	7	12	4	11	7	11	7
SEATTLE-BELLEVUE-EVERETT, WA	16	6	9	4	3	0	3	0	6	1	3	26	3
SPRINGFIELD, MA	13	10	13	15	12	13	12	9	5	10	7	13	7
SYRACUSE, NY	6	2	1	11	2	4	0	1	0	0	2	8	3
TACOMA, WA	7	3	5	1	2	0	2	0	1	0	4	9	4
TAMPA-ST. PETERSBURG-CLEARWATER, FL	22	4	6	1	1	1	3	2	3	4	11	32	11
TOLEDO, OH	6	8	3	6	2	7	9	9	11	4	5	6	6
TUSCON, AZ	20	2	1	0	1	1	1	3	0	1	0	25	0
TULSA, OK	11	5	16	12	1	4	12	21	14	7	9	11	9
VENTURA, CA	12	87	70	87	54	37	63	65	62	44	29	15	30
WASHINGTON, DC-MD-VA-WV	32	24	25	48	14	48	20	29	18	29	45	46	47
WEST PALM BEACH-BOCA RATON, FL	6	1	0	0	0	3	0	0	0	0	2	9	2
WILMINGTON-NEWARK, DE-MD	5	12	9	12	7	10	5	12	3	6	8	10	28
YOUNGSTOWN-WARREN, OH	9	8	3	14	5	2	0	11	5	3	15	15	22

**Table A-16.** (Ozone only) Number of Days with AQI Values Greater Than 100 at Trend Sites, 1989–1998, and All Sites in 1998

Metropolitan Statistical Area	# of Trend Sites											Total # of Sites	AQI > 100 1998
		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998		
AKRON, OH	2	15	9	30	8	10	8	12	11	6	14	2	14
ALBANY-SCHENECTADY-TROY, NY	3	4	4	9	5	5	6	3	4	3	2	3	2
ALBUQUERQUE, NM	7	0	2	0	0	0	1	0	0	0	0	9	0
ALLENTOWN-BETHLEHEM-EASTON, PA	3	11	10	14	3	6	9	17	6	13	18	3	18
ATLANTA, GA	2	14	42	23	18	30	12	33	21	26	43	7	60
AUSTIN-SAN MARCOS, TX	2	4	4	3	1	2	4	12	0	0	5	2	6
BAKERSFIELD, CA	5	111	95	107	100	97	98	104	109	55	75	8	76
BALTIMORE, MD	7	28	28	50	23	48	40	36	28	30	51	8	51
BATON ROUGE, LA	3	12	28	11	5	5	7	15	7	8	14	7	21
BERGEN-PASSAIC, NJ	1	10	8	11	2	3	5	11	3	5	0	1	0
BIRMINGHAM, AL	6	5	28	5	12	10	6	32	15	8	23	6	23
BOSTON, MA-NH	4	12	7	13	9	6	10	8	2	8	7	5	9
BUFFALO-NIAGARA FALLS, NY	2	4	7	9	3	1	4	6	3	1	13	2	13
CHARLESTON-NORTH CHARLESTON, SC	3	5	1	1	0	2	2	1	3	3	3	3	3
CHARLOTTE-GASTONIA-ROCK HILL, NC-SC	3	12	29	12	11	23	9	13	18	26	48	7	51
CHICAGO, IL	17	15	3	22	4	3	7	21	6	9	7	22	10
CINCINNATI, OH-KY-IN	7	19	19	22	3	13	19	23	11	11	14	8	20
CLEVELAND-LORAIN-ELYRIA, OH	6	17	10	23	10	12	22	21	17	11	19	9	21
COLUMBUS, OH	3	7	4	17	5	7	10	15	16	8	19	5	23
DALLAS, TX	2	18	24	2	11	12	15	36	12	15	18	6	36
DAYTON-SPRINGFIELD, OH	3	10	13	12	2	11	14	11	18	9	19	5	21
DENVER, CO	5	5	4	0	1	0	0	0	0	0	5	8	9
DETROIT, MI	8	18	11	28	7	5	11	12	12	12	17	8	17
EL PASO, TX	3	5	6	1	3	3	7	5	2	1	5	4	6
FORT LAUDERDALE, FL	3	6	1	0	2	4	1	1	1	0	1	3	1
FORT WORTH-ARLINGTON, TX	2	17	16	20	7	9	31	28	14	14	17	2	17
FRESNO, CA	5	89	56	81	69	59	55	61	70	75	67	7	69
GARY, IN	3	15	2	8	5	0	6	17	11	11	9	4	10
GRAND RAPIDS-MUSKEGON-HOLLAND, MI	4	16	10	26	6	3	12	17	7	8	13	5	19
GREENSBORO-WINSTON-SALEM-HIGH PT, NC	2	4	12	5	2	20	7	6	6	13	25	6	30
GREENVILLE-SPARTANBURG-ANDERSON, SC	4	3	2	3	5	9	5	8	7	10	29	4	29
HARRISBURG-LEBANON-CARLISLE, PA	3	10	10	21	1	15	12	13	3	9	22	3	22
HARTFORD, CT	3	18	13	21	14	14	18	13	5	16	10	3	10
HONOLULU, HI	1	0	0	0	0	0	0	0	0	0	0	1	0
HOUSTON, TX	10	43	54	37	32	28	45	66	28	47	38	12	40
INDIANAPOLIS, IN	6	15	9	11	6	9	22	19	13	12	19	9	22
JACKSONVILLE, FL	2	4	3	0	2	3	2	1	1	4	10	2	10
JERSEY CITY, NJ	1	15	15	25	9	19	12	16	5	9	7	1	7
KANSAS CITY, MO-KS	6	4	2	11	1	3	10	22	9	18	15	6	15
KNOXVILLE, TN	4	2	23	10	7	20	13	20	19	36	52	7	54
LAS VEGAS, NV-AZ	3	2	2	0	1	2	2	0	2	0	0	4	3
LITTLE ROCK-NORTH LITTLE ROCK, AR	2	1	1	3	0	2	2	7	1	1	2	2	2
LOS ANGELES-LONG BEACH, CA	14	149	130	126	140	112	117	97	74	45	46	14	46
LOUISVILLE, KY-IN	4	13	10	15	2	19	27	21	10	13	24	7	29
MEMPHIS, TN-AR-MS	4	6	22	9	13	13	10	21	18	17	27	4	27
MIAMI, FL	4	5	1	1	3	6	1	2	1	3	8	4	8
MIDDLESEX-SOMERSET-HUNTERDON, NJ	1	19	24	24	8	13	9	16	8	18	21	2	22
MILWAUKEE-WAUKESHA, WI	8	17	8	24	3	4	9	14	5	4	10	9	12

**Table A-16.** (Ozone only) Number of Days with AQI Values Greater Than 100 at Trend Sites, 1989–1998, and All Sites in 1998 (continued)

Metropolitan Statistical Area	# of Trend Sites											Total AQI	
		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	# of Sites	> 100 1998
MINNEAPOLIS-ST. PAUL, MN-WI	4	1	1	0	2	0	0	4	1	0	0	5	1
MONMOUTH-OCEAN, NJ	1	15	21	20	6	11	3	6	12	12	19	2	31
NASHVILLE, TN	7	10	31	13	6	18	21	28	23	20	30	7	32
NASSAU-SUFFOLK, NY	1	14	20	25	5	15	10	9	6	8	10	2	11
NEW HAVEN-MERIDEN, CT	2	11	15	28	10	13	13	14	8	19	10	2	10
NEW ORLEANS, LA	6	4	6	2	5	6	8	20	8	7	7	6	7
NEW YORK, NY	5	24	33	47	10	19	21	18	15	23	17	7	21
NEWARK, NJ	2	20	22	32	10	13	12	20	12	13	23	2	23
NORFOLK-VA BEACH-NEWPORT NEWS,VA-NC	3	4	8	7	8	19	6	6	4	17	15	3	15
OAKLAND, CA	8	6	4	3	3	4	3	12	11	0	11	9	12
OKLAHOMA CITY, OK	4	4	4	4	2	2	5	13	2	4	7	4	7
OMAHA, NE-IA	3	0	1	0	0	0	0	0	0	0	0	3	0
ORANGE COUNTY, CA	4	43	38	35	35	25	15	8	9	3	6	4	6
ORLANDO, FL	3	9	4	1	4	4	3	1	1	4	11	4	14
PHILADELPHIA, PA-NJ	8	42	39	49	24	51	25	30	22	32	37	10	37
PHOENIX-MESA, AZ	8	4	7	7	11	16	7	19	17	10	17	18	33
PITTSBURGH, PA	8	14	11	20	8	13	19	24	11	20	39	11	39
PONCE, PR	0	0	0	0	0	0	0	0	0	0	0	0	0
PORTLAND-VANCOUVER, OR-WA	4	0	8	3	6	0	1	2	6	0	3	4	3
PROVIDENCE-FALL RIVER-WARWICK, RI-MA	2	9	13	20	5	7	7	11	4	10	4	3	5
RALEIGH-DURHAM-CHAPEL HILL, NC	1	10	15	5	0	11	2	1	1	13	21	8	40
RICHMOND-PETERSBURG, VA	4	11	6	18	8	30	13	19	5	21	28	4	28
RIVERSIDE-SAN BERNARDINO, CA	15	180	153	152	172	167	148	119	116	102	94	19	96
ROCHESTER, NY	2	5	5	16	2	0	1	6	0	6	4	2	4
SACRAMENTO, CA	6	30	17	44	43	14	30	32	30	5	17	12	33
ST. LOUIS, MO-IL	16	21	23	32	15	9	31	34	20	14	23	17	24
SALT LAKE CITY-OGDEN, UT	2	14	5	3	0	2	4	4	6	1	12	7	19
SAN ANTONIO, TX	2	3	4	3	1	3	4	18	3	3	6	2	6
SAN DIEGO, CA	9	122	96	67	66	58	46	48	31	14	33	10	35
SAN FRANCISCO, CA	3	0	0	0	0	0	0	2	0	0	0	3	0
SAN JOSE, CA	4	7	4	5	3	4	2	10	7	0	5	6	8
SAN JUAN-BAYAMON, PR	0	0	0	0	0	0	0	0	0	0	0	1	0
SCRANTON-WILKES-BARRE-HAZLETON, PA	4	6	9	17	3	10	7	12	4	11	7	4	7
SEATTLE-BELLEVUE-EVERETT, WA	2	0	7	3	3	0	3	0	6	1	3	4	3
SPRINGFIELD, MA	4	10	13	15	12	13	12	9	4	10	7	4	7
SYRACUSE, NY	1	0	0	11	2	4	0	1	0	0	2	2	3
TACOMA, WA	1	0	4	0	2	0	2	0	1	0	4	2	4
TAMPA-ST. PETERSBURG-CLEARWATER, FL	6	4	6	1	1	1	3	2	3	4	11	7	11
TOLEDO, OH	3	8	3	6	2	7	9	9	11	4	5	3	6
TUSCON, AZ	6	0	1	0	1	1	1	3	0	1	0	6	0
TULSA, OK	3	5	16	12	1	4	12	21	14	7	9	3	9
VENTURA, CA	5	87	70	87	54	37	63	65	62	43	29	7	30
WASHINGTON, DC-MD-VA-WV	12	23	25	48	14	48	20	29	18	29	45	17	47
WEST PALM BEACH-BOCA RATON, FL	2	1	0	0	0	3	0	0	0	0	2	2	2
WILMINGTON-NEWARK, DE-MD	1	12	9	12	7	10	5	12	3	6	8	4	28
YOUNGSTOWN-WARREN, OH	1	8	3	14	5	2	0	11	5	3	15	3	22

**Table A-17. Condensed Nonattainment Areas List(a)**

State	Area Name(b)	Pollutant(c)					Population(d)					All		
		O <sub>3</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	Pb	NO <sub>2</sub>	O <sub>3</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>		Pb	
1	AK	Anchorage	.	1	.	1	.	.	.	222	.	170	.	222
2	AK	Fairbanks	.	1	.	.	.	.	.	30	.	.	.	30
3	AK	Juneau	.	.	.	1	.	.	.	.	.	12	.	12
4	AL	Birmingham	1	.	.	.	.	.	.	751	.	.	.	751
5	AZ	Ajo	.	.	1	1	.	.	.	.	6	6	.	6
6	AZ	Bullhead City	.	.	.	1	.	.	.	.	.	5	.	5
7	AZ	Douglas	.	.	1	1	.	.	.	.	13	13	.	13
8	AZ	Miami-Hayden	.	.	2	1	.	.	.	.	3	3	.	3
9	AZ	Morenci	.	.	1	.	.	.	.	.	8	.	.	8
10	AZ	Nogales	.	.	.	1	.	.	.	.	.	19	.	19
11	AZ	Paul Spur	.	.	.	1	.	.	.	.	.	1	.	1
12	AZ	Payson	.	.	.	1	.	.	.	.	.	8	.	8
13	AZ	Phoenix	1	1	.	1	.	.	.	2,092	2,006	.	2,122	2,122
14	AZ	Rillito	.	.	.	1	.	.	.	.	.	0	.	0
15	AZ	San Manuel	.	.	1	.	.	.	.	.	5	.	.	5
16	AZ	Yuma	.	.	.	1	.	.	.	.	.	54	.	54
17	CA	Imperial Valley	.	.	.	1	.	.	.	.	.	92	.	92
18	CA	Los Angeles-South Coast Air Basin	1	1	.	1	.	.	.	13,000	13,000	.	13,000	13,000
19	CA	Mono Basin (in Mono Co.)	.	.	.	1	.	.	.	.	.	0	.	0
20	CA	Owens Valley	.	.	.	1	.	.	.	.	.	18	.	18
21	CA	Sacramento Metro	1	.	.	1	.	.	.	1,639	.	1,041	.	1,639
22	CA	San Diego	1	.	.	.	.	.	.	2,498	.	.	.	2,498
23	CA	San Francisco-Oakland-San Jose	1	.	.	.	.	.	.	5,815	.	.	.	5,815
24	CA	San Joaquin Valley	1	.	.	1	.	.	.	2,742	.	2,742	.	2,742
25	CA	Santa Barbara-Santa Maria-Lompoc	1	.	.	.	.	.	.	370	.	.	.	370
26	CA	Searles Valley	.	.	.	1	.	.	.	.	.	30	.	30
27	CA	Southeast Desert Modified AQMA	1	.	.	2	.	.	.	384	.	349	.	384
28	CA	Ventura Co.	1	.	.	.	.	.	.	669	.	.	.	669
29	CO	Aspen	.	.	.	1	.	.	.	.	.	5	.	5
30	CO	Canon City	.	.	.	1	.	.	.	.	.	12	.	12
31	CO	Colorado Springs	.	1	.	.	.	.	.	353	.	.	.	353
32	CO	Denver-Boulder	.	1	.	1	.	.	.	1,800	.	1,836	.	1,836
33	CO	Fort Collins	.	1	.	.	.	.	.	106	.	.	.	106
34	CO	Lamar	.	.	.	1	.	.	.	.	.	8	.	8
35	CO	Longmont	.	1	.	.	.	.	.	52	.	.	.	52
36	CO	Pagosa Springs	.	.	.	1	.	.	.	.	.	1	.	1
37	CO	Steamboat Springs	.	.	.	1	.	.	.	.	.	6	.	6
38	CO	Telluride	.	.	.	1	.	.	.	.	.	1	.	1
39	CT	Greater Connecticut	1	.	.	1	.	.	.	2,470	.	126	.	2,470
40	DC-MD-VA	Washington	1	.	.	.	.	.	.	3,923	.	.	.	3,923
41	GA	Atlanta	1	.	.	.	.	.	.	2,653	.	.	.	2,653
42	GU	Piti Power Plant	.	.	1	.	.	.	.	.	0	.	.	0
43	GU	Tanguisson Power Plant	.	.	1	.	.	.	.	.	0	.	.	0
44	ID	Bonner Co.(Sandpoint )	.	.	.	1	.	.	.	.	.	26	.	26
45	ID	Fort Hall I.R.	.	.	.	1	.	.	.	.	.	1	.	1
46	ID	Portneuf Valley	.	.	.	1	.	.	.	.	.	74	.	74
47	ID	Shoshone Co.	.	.	.	2	.	.	.	.	.	13	.	13
48	IL-IN	Chicago-Gary-Lake County	1	.	1	3	.	.	.	7,887	.	475	625	7,887
49	IN	Marion Co. (Indianapolis)	.	.	.	.	1	.	.	.	.	.	16	16
50	KY	Boyd Co. (Ashland)	.	.	1	.	.	.	.	.	51	.	.	51
51	KY-IN	Louisville	1	.	.	.	.	.	.	834	.	.	.	834

**Table A-17. Condensed Nonattainment Areas List(a) (continued)**

State	Area Name(b)	Pollutant(c)					Population(d)					All		
		O <sub>3</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	Pb	NO <sub>2</sub>	O <sub>3</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>		Pb	
52	LA	Baton Rouge	1	.	.	.	.	.	559	.	.	.	.	559
53	MA	Springfield (W. Mass)	1	.	.	.	.	.	812	.	.	.	.	812
54	MD	Baltimore	1	.	.	.	.	.	2,348	.	.	.	.	2,348
55	MD	Kent and Queen Anne Cos.	1	.	.	.	.	.	52	.	.	.	.	52
56	MN	Minneapolis-St. Paul	.	1	.	1	.	.	.	2,310	.	272	.	2,310
57	MN	Olmsted Co. (Rochester)	.	.	1	.	.	.	.	.	71	.	.	71
58	MO	Dent	.	.	.	.	1	.	.	.	.	.	3	3
59	MO	Liberty-Arcadia	.	.	.	.	1	.	.	.	.	.	2	2
60	MO-IL	St. Louis	1	.	.	.	1	.	2,390	.	.	.	2	2,390
61	MT	Butte	.	.	.	1	.	.	.	.	.	33	.	33
62	MT	Columbia Falls	.	.	.	1	.	.	.	.	.	3	.	3
63	MT	Kalispell	.	.	.	1	.	.	.	.	.	12	.	12
64	MT	Lame Deer	.	.	.	1	.	.	.	.	.	1	.	1
65	MT	Lewis & Clark (E. Helena)	.	.	1	.	1	.	.	.	2	.	2	2
66	MT	Libby	.	.	.	1	.	.	.	.	.	3	.	3
67	MT	Missoula	.	1	.	1	.	.	.	43	.	43	.	43
68	MT	Polson	.	.	.	1	.	.	.	.	.	3	.	3
69	MT	Ronan	.	.	.	1	.	.	.	.	.	2	.	2
70	MT	Thompson Falls	.	.	.	1	.	.	.	.	.	1	.	1
71	MT	Whitefish	.	.	.	1	.	.	.	.	.	3	.	3
72	MT	Yellowstone Co. (Laurel)	.	.	1	.	.	.	.	.	5	.	.	5
73	NE	Douglas Co. (Omaha)	.	.	.	.	1	.	.	.	.	.	1	1
74	NM	Anthony	.	.	.	1	.	.	.	.	.	2	.	2
75	NM	Grant Co.	.	.	1	.	.	.	.	.	28	.	.	28
76	NM	Sunland Park	1	.	.	.	.	.	8	.	.	.	.	8
77	NV	Central Steptoe Valley	.	.	1	.	.	.	.	.	2	.	.	2
78	NV	Las Vegas	.	1	.	1	.	.	.	258	.	741	.	741
79	NV	Reno	.	1	.	1	.	.	.	134	.	254	.	254
80	NY-NJ-CT	New York-N. New Jersey-Long Island	1	1	.	1	.	.	17,943	12,338	.	1,488	.	17,943
81	OH	Cleveland-Akron-Lorain	.	.	2	1	.	.	.	.	1,683	1,412	.	1,683
82	OH	Coshocton Co.	.	.	1	.	.	.	.	.	35	.	.	35
83	OH	Gallia Co.	.	.	1	.	.	.	.	.	31	.	.	31
84	OH	Jefferson Co. (Steubenville)	.	.	.	1	.	.	.	.	.	4	.	4
85	OH	Lucas Co. (Toledo)	.	.	1	.	.	.	.	.	462	.	.	462
86	OH-KY	Cincinnati-Hamilton	1	.	.	.	.	.	1,705	.	.	.	.	1,705
87	OR	Grants Pass	.	1	.	1	.	.	.	17	.	17	.	17
88	OR	Klamath Falls	.	1	.	1	.	.	.	18	.	18	.	18
89	OR	LaGrande	.	.	.	1	.	.	.	.	.	12	.	12
90	OR	Lakeview	.	.	.	1	.	.	.	.	.	3	.	3
91	OR	Medford	.	1	.	1	.	.	.	62	.	63	.	63
92	OR	Oakridge	.	.	.	1	.	.	.	.	.	3	.	3
93	OR	Springfield-Eugene	.	.	.	1	.	.	.	.	.	157	.	157
94	PA	Lancaster	1	.	.	.	.	.	423	.	.	.	.	423
95	PA	Pittsburgh-Beaver Valley	1	.	2	1	.	.	2,468	.	446	75	.	2,468
96	PA	Warren Co	.	.	2	.	.	.	.	.	22	.	.	22
97	PA-DE-NJ-MD	Philadelphia-Wilmington-Trenton	1	.	.	.	.	.	6,010	.	.	.	.	6,010
98	PA-NJ	Allentown-Bethlehem	.	.	1	.	.	.	.	.	91	.	.	91
99	PR	Guaynabo Co.	.	.	.	1	.	.	.	.	.	85	.	85
100	TN	Shelby Co. (Memphis)	.	.	.	.	1	.	.	.	.	.	826	826
101	TX	Beaumont-Port Arthur	1	.	.	.	.	.	361	.	.	.	.	361
102	TX	Dallas-Fort Worth	1	.	.	.	1	.	3,561	.	.	.	264	3,561

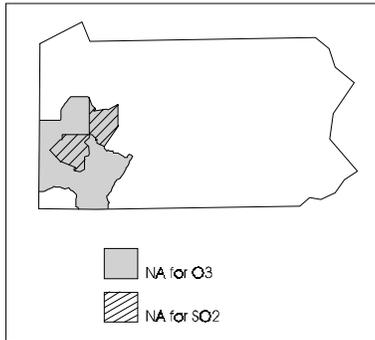
**Table A-17. Condensed Nonattainment Areas List(a)**

State	Area Name(b)	Pollutant(c)					Population(d)					All	
		O <sub>3</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	Pb	NO <sub>2</sub>	O <sub>3</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>		Pb
103 TX	El Paso	1	1	.	1	.	.	592	54	.	515	.	592
104 TX	Houston-Galveston-Brazoria	1	.	.	.	.	.	3,731	.	.	.	.	3,731
105 UT	Ogden	.	1	.	1	.	.	.	63	.	63	.	63
106 UT	Salt Lake City	.	.	1	1	.	.	.	.	725	725	.	725
107 UT	Tooele Co.	.	.	1	.	.	.	.	.	26	.	.	26
108 UT	Utah Co. (Provo)	.	1	.	1	.	.	.	85	.	263	.	263
109 WA	Olympia-Tumwater-Lacey	.	.	.	1	.	.	.	.	.	63	.	63
110 WA	Seattle-Tacoma	.	.	.	3	.	.	.	.	.	730	.	730
111 WA	Spokane	.	1	.	1	.	.	.	279	.	177	.	279
112 WA	Wallula	.	.	.	1	.	.	.	.	.	47	.	47
113 WA	Yakima	.	.	.	1	.	.	.	.	.	54	.	54
114 WI	Manitowoc Co.	1	.	.	.	.	.	80	.	.	.	.	80
115 WI	Marathon Co. (Wausau)	.	.	1	.	.	.	.	.	115	.	.	115
116 WI	Milwaukee-Racine	1	.	.	.	.	.	1,735	.	.	.	.	1,735
117 WI	Oneida Co. (Rhinelander)	.	.	1	.	.	.	.	.	31	.	.	31
118 WV	Follansbee	.	.	.	1	.	.	.	.	.	3	.	3
119 WV	New Manchester Gr. (in Hancock Co)	.	.	1	.	.	.	.	.	10	.	.	10
120 WV	Wier.-Butler-Clay (in Hancock Co)	.	.	1	1	.	.	.	.	25	22	.	25
121 WY	Sheridan	.	.	.	1	.	.	.	.	.	13	.	13
		32	20	31	77	8	0	92,505	33,230	4,371	29,804	1,116	105,106

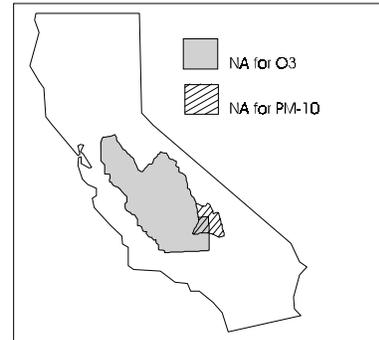
**Notes:**

- (a) This is a simplified listing of Classified Nonattainment areas. Unclassified and Section 185a nonattainment areas are not included. In certain cases, footnotes are used to clarify the areas involved. For example, the lead nonattainment area listed within the Dallas-Fort Worth ozone nonattainment area is in Frisco, Texas, which is not in Dallas county, but is within the designated boundaries of the ozone nonattainment area. Readers interested in more detailed information should use the official *Federal Register* citation (40 CFR 81).
- (b) Names of nonattainment areas are listed alphabetically within each state. The largest city determines which state is listed first in the case of multiple-city nonattainment areas. When a larger nonattainment area, such as ozone, contains 1 or more smaller nonattainment areas, such as PM<sub>10</sub> or lead, the common name for the larger nonattainment area is used. Note that several smaller nonattainment areas may be inside one larger nonattainment area, as is the case in Figure A-1. For the purpose of this table, these are considered one nonattainment area and are listed on one line. Occasionally, two nonattainment areas may only partially overlap, as in Figure A-2. These are counted as two distinct nonattainment areas and are listed on separate lines.
- (c) The number of nonattainment areas for each of the criteria pollutants is listed.
- (d) Population figures were obtained from 1990 census data. For nonattainment areas defined as only partial counties, population figures for just the nonattainment area were used when these were available. Otherwise, whole county population figures were used. When a larger nonattainment area encompasses a smaller one, double-counting the population in the "All" column is avoided by only counting the population of the larger nonattainment area.
- (e) Lead nonattainment area is a portion of Franklin township, Marion county, Indiana.
- (f) Sulfur dioxide nonattainment area is a portion of Boyd county.
- (g) Lead nonattainment area is Herculaneum, Missouri in Jefferson county.
- (h) Lead nonattainment area is a portion of Lewis and Clark county, Montana.
- (i) Ozone nonattainment area is a portion of Dona Ana county, New Mexico.
- (j) Lead nonattainment area is a portion of Shelby county, Tennessee.
- (k) Lead nonattainment area is Frisco, Texas, in Collin county.

**Table A-17.** Condensed Nonattainment Areas List(a) (continued)



**Figure A-1.** (Multiple NA areas within a larger NA area) Two SO<sub>2</sub> areas inside the Pittsburgh–Beaver Valley ozone NA. Counted as one NA area.



**Figure A-2.** (Overlapping NA areas) Searles Valley PM<sub>10</sub> NA partially overlaps the San Joaquin Valley ozone NA. Counted as two NA areas.

**Table A-18.** Trend in 8-hr ozone concentrations at National Park and National Monument sites, 1989–98

National Park	Trend	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Acadia NP	NS	0.076 2	0.089 4	0.095 7	0.080 1	0.080 3	0.075 0	0.092 5	0.073 2	0.077 1	nd nd
Big Bend NP	UP	nd nd	nd nd	0.057 0	0.061 0	0.063 0	0.069 0	0.065 0	0.073 0	0.063 0	0.07 0
Brigantine	NS	0.102 13	0.109 17	0.111 34	0.094 8	0.093 13	0.083 2	0.1 10	0.095 13	0.106 18	0.091 22
Cape Cod NS	NS	0.104 10	0.097 9	0.111 16	0.096 6	0.088 4	0.088 4	0.105 9	0.096 8	0.1 17	0.084 2
Cape Romain	UP	0.064 1	nd nd	0.06 0	0.072 0	0.069 0	0.067 0	0.075 1	0.071 1	0.082 3	0.076 0
Chiricahua NM	NS	0.066 0	0.069 0	0.071 0	0.065 0	0.068 0	0.071 0	0.059 0	0.072 0	0.065 0	0.067 0
Congaree Swamp	UP	nd nd	nd nd	0.059 0	0.067 0	0.063 0	0.064 0	0.076 1	0.074 0	0.065 0	0.081 0
Cowpens NB	UP	0.081 1	0.074 0	0.078 1	0.086 4	0.082 3	0.083 2	0.084 3	0.080 2	0.091 6	0.096 15
Denali NP	UP	0.046 0	0.048 0	0.049 0	0.05 0	0.048 0	0.049 0	0.053 0	0.053 0	0.051 0	0.054 0
Everglades NP	NS	0.067 0	0.060 0	0.060 0	0.061 0	0.064 0	0.064 0	0.058 0	0.063 0	0.066 0	0.072 0
Glacier NP	NS	0.056 0	0.050 0	0.051 0	0.051 0	0.044 0	0.055 0	nd nd	0.057 0	0.040 0	0.053 0
Grand Canyon NP	NS	0.065 0	0.072 0	0.073 0	0.074 0	0.066 0	0.073 0	nd nd	0.073 0	0.072 0	0.072 0
Great Smoky Mtn	UP	0.083 2	0.092 5	0.079 2	0.088 5	0.088 4	0.093 10	0.099 11	0.088 8	0.098 19	0.11 35
Great Smoky Mtn	UP	0.079 0	0.087 4	0.082 1	0.075 0	0.089 7	0.088 6	0.093 12	0.092 12	0.095 20	0.106 34
Lassen Volcanic	NS	0.073 0	0.078 1	0.066 0	0.069 0	0.064 0	0.078 1	0.074 0	0.073 1	0.067 0	0.078 1
Mammoth Cave NP	NS	0.084 2	0.083 2	0.078 0	0.073 0	0.072 0	0.075 1	0.088 5	0.082 2	0.078 1	nd nd
Olympic NP	NS	0.044 0	0.046 0	0.043 0	0.046 0	0.042 0	0.042 0	0.049 0	0.046 0	0.045 0	0.046 0
Pinnacles NM	NS	0.080 1	0.083 3	0.084 3	0.084 3	0.060 0	0.078 0	0.083 3	0.094 9	0.076 1	0.088 5
Rocky Mountain	UP	0.067 0	0.057 0	0.076 0	0.071 0	0.071 1	0.076 0	0.076 0	0.072 0	nd nd	0.080 1
Saguaro NM	NS	0.072 0	0.075 0	0.073 0	0.074 1	0.082 1	0.080 0	0.083 2	0.076 0	0.079 0	0.077 0
Sequoia/Kings C	NS	0.093 29	0.096 27	0.097 34	0.102 50	0.106 48	0.106 58	0.095 18	0.105 50	0.097 26	0.094 26
Shenandoah NP	UP	0.072 0	0.086 4	0.083 3	0.077 1	0.083 2	0.083 2	0.087 7	0.081 1	0.089 6	0.107 22
Theodore Roosevelt	NS	0.065 0	0.062 0	0.060 0	0.057 0	0.055 0	0.057 0	0.058 0	0.059 0	0.071 0	inc 0
Yosemite NP	NS	0.085 4	0.094 19	0.080 1	0.084 3	0.078 0	0.077 0	0.084 2	0.081 1	nd nd	nd nd

**Notes:**

1. The trends statistic is the annual fourth highest daily maximum 8-hour ozone concentration (ppm). The number of exceedances of the level of the 8-hour ozone NAAQS is shown below the concentration value.
2. "nd" indicates no data available for that year.
3. "inc" indicates less than 90 days of monitoring data available for that year.
4. "NS" indicates no statistically significant trend (at the 0.05 level).
5. "UP" indicates a statistically significant upward trend in ozone concentrations.